**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**

| | |
|---|---|
| **For Quadrant:** | REQ |
| **Requesters:** | Smart Grid Interoperability Panel |
| **Request No.:** | 2010 REQ Annual Plan Item96 |
| **Request Title:** | Master Data Requirements List for Business Practice Standards associated with NIST PAP 03 and PAP 09 |

## 1. RECOMMENDED ACTION:

<u>  X  </u> Accept as requested
_____ Accept as modified below
_____ Decline

**EFFECT OF EC VOTE TO ACCEPT RECOMMENDED ACTION:**

<u>  X  </u> Change to Existing Practice
_____ Status Quo

## 2. TYPE OF DEVELOPMENT/MAINTENANCE

**Per Request:**

<u>  X  </u> Initiation
_____ Modification
_____ Interpretation
_____ Withdrawal

_____ Principle
_____ Definition
_____ Business Practice Standard
_____ Document
<u>  X  </u> Data Element
_____ Code Value
_____ X12 Implementation Guide
_____ Business Process Documentation

**Per Recommendation:**

<u>  X  </u> Initiation
_____ Modification
_____ Interpretation
_____ Withdrawal

_____ Principle
_____ Definition
_____ Business Practice Standard
_____ Document
<u>  X  </u> Data Element
_____ Code Value
_____ X12 Implementation Guide
_____ Business Process Documentation

## 3. RECOMMENDATION

**SUMMARY:**    The Master Data Requirements List contains the list of data elements used in the use cases that were developed for PAP 03 and PAP 09 in the phase one effort.

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**RECOMMENDED STANDARDS:**


## REQ.20.3     Smart Grid Standards Data Requirements Table

**Introduction**

This Business Practice Standard contains the list of data elements used in Business Practice Standards WEQ-016 and WEQ-018. Specific application of the data elements to a given use case contained in WEQ-016 and WEQ-018 are identified within the appropriate Business Practice Standard.  This Business Practice Standard and data elements included herein are not intended to replace applicable Governing Documents, and in the event of a conflict, the latter documents shall have precedence over this standard.


## REQ.20.3.1     Alphabetical Listing by Data Element Name

*\* Listing by Category ID and Category Element ID begins on page 46*

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale PAP 03 | Wholesale PAP 04 | Wholesale PAP 09 | Retail PAP 03 | Retail PAP 04 | Retail PAP 09 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Location | 2 | 10 | **Address1** | Address line 1 | - | - | - | Y | - | - | Y |
| 2-Location | 2 | 11 | **Address2** | Address line 2 | - | - | - | Y | - | - | Y |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 10-Ancillary Service Market | 10 | 16 | Ancillary Service Award - Cleared Price | Awarded Price | The market clearing price for the cleared ancillary service product MW. | - | - | Y | - | - | - |
| 10-Ancillary Service Market | 10 | 13 | Ancillary Service Award - End Time | End Time of the ancillary service Award | A Schedule is an ancillary service profile for a Resource for a future time period, by scheduling time interval. | - | - | Y | - | - | - |
| 10-Ancillary Service Market | 10 | 14 | Ancillary Service Award - Interval Start Time | Start Time of the ancillary service Interval within the ancillary service Award and the ancillary service Value of the Time Interval | The start time of a specific ancillary service schedule interval | - | - | Y | - | - | - |
| 10-Ancillary Service Market | 10 | 15 | Ancillary Service Award - Interval Value | The awarded Value for the Time Interval within the ancillary service Award | The value associated with a specific ancillary service schedule interval | - | - | Y | - | - | - |
| 10-Ancillary Service Market | 10 | 12 | Ancillary Service Award - Start Time | Start Time of the ancillary service Award | A Schedule is an ancillary service profile for a Resource for a future time period, by scheduling time interval. | - | - | Y | - | - | - |
| 10-Ancillary Service Market | 10 | 0 | Ancillary Service Instruction ID | - | Unique identifier assigned to each ancillary service instruction. | - | - | Y | - | - | - |
| 10-Ancillary Service Market | 10 | 20 | Ancillary Service Product Qualification Type | Type of Qualification | Examples include initial, requalification, etc. | - | - | Y | - | - | - |

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| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 10-Ancillary Service Market | 10 | 10 | **Ancillary Service Product Type** | Type of Ancillary Service product(s) the Resource is enrolling to provide | - | - | - | Y | - | - | Y |
| 10-Ancillary Service Market | 10 | 22 | **Ancillary Service Product Type Qualification Date** | Date of Qualification of the Resource | - | - | - | Y | - | - | - |
| 10-Ancillary Service Market | 10 | 23 | **Ancillary Service Product Type Qualified** | Type of Ancillary Service Product(s) for which the Resource has Qualified | - | - | - | Y | - | - | - |
| 10-Ancillary Service Market | 10 | 17 | **Ancillary Service Schedule ID** | - | Unique identifier assigned to each ancillary service schedule. | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 2294 | **ANSI Compliance** | ANSI standard with which the Meter complies | - | - | - | Y | - | - | - |
| 1-General Asset / Resource | 1 | 30 | **Asset Group ID** | The identifier of a group of assets | An Asset Group is a logical entity that has a reportable interval-level consumption. | - | - | Y | - | - | Y |
| 1-General Asset / Resource | 1 | 31 | **Asset Group Name** | Name of the aggregated group of assets | - | - | - | Y | - | - | Y |
| 1-General Asset / Resource | 1 | 12 | **Asset ID** | The unique identifier of the asset | - | - | - | Y | - | - | Y |
| 6-Device and Qualification | 6 | 83 | **Asset Manufacture Date** | Date of Manufacture of the Asset | - | - | - | - | - | - | Y |
| 6-Device and Qualification | 6 | 80 | **Asset** | Manufacturer of the Asset | - | - | - | - | - | - | Y |

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| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|----------|-------------|---------------------|--------------|------------------|------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| | | | **Manufacturer** | | | | | | | | |
| 6-Device and Qualification | 6 | 81 | **Asset Model** | Model identifier of the Asset, assigned by the Manufacturer | - | - | - | - | - | - | Y |
| 2-Location | 2 | 51 | **Asset Multiplier** | Number of identical Assets within the Service Location | - | - | - | Y | - | - | - |
| 1-General Asset / Resource | 1 | 13 | **Asset Name** | The name of the asset | - | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 90 | **Asset Operator ID** | The identifier of the business entity that operates the DR assets. This is the entity that has physical control of the asset and control of the capability to participate in DR Events. | - | - | - | - | - | - | Y |
| 5-Business Entity Relationships | 5 | 91 | **Asset Operator Name** | The name of the business entity that operates the DR assets. This is the entity that has physical control of the asset and control of the capability to participate in DR Events. | - | - | - | - | - | - | Y |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 5-Business Entity Relationships | 5 | 92 | **Asset Owner ID** | The Identifier of the business entity that owns the DR assets (entity that has the right to use or transfer use of the asset). | - | - | - | - | - | - | Y |
| 5-Business Entity Relationships | 5 | 93 | **Asset Owner Name** | The Name of business entity that owns the DR assets (entity that has the right to use or transfer use of the asset). | - | - | - | - | - | - | Y |
| 6-Device and Qualification | 6 | 84 | **Asset Type** | Type of Asset | Examples are: load reduction (curtailable or interruptible load), generation, combination, DG, renewable, storage, etc. | - | - | - | - | - | Y |
| 6-Device and Qualification | 6 | 82 | **Asset Version** | Model version identifier, assigned by the Manufacturer | - | - | - | - | - | - | Y |
| 10-Ancillary Service Market | 10 | 33 | **Base Load MW** | Level of Load at time of dispatch | - | - | - | Y | - | - | - |

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                  NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 9-Energy Market | 9 | 20 | **Base Point** | Per-interval dispatch instruction | A Dispatch is a real-time instruction to a Resource to move to a Base Point at a specific time (Resource-Specific Deployment) or a set of real-time instructions to multiple Resources (Bulk Deployment). A Resoiurce-Specific Deployment is the deployment, via established Communication Methods initiated by the System Operator, of one or more discrete and/or unique Resources designated to provide a selected service. | - | - | Y | - | - | - |
| 12-Event and Performance | 12 | 21 | **Baseline Dates** | Dates of days used to calculate the Energy Baseline | The Baseline Window is the window of time preceding, and optionally following, a Demand Response Event, over which electricity consumption data is collected for the purpose of establishing a Baseline. The applicability of this term is limited to Meter Before/Meter After, and Baseline Type-I and Type-II. | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 22 | **Baseline Exclusion Dates** | Dates of days Excluded from the calculation of the Energy Baseline | - | - | - | Y | - | - | Y |
| 1-General Asset / Resource | 1 | 51 | **Batch Load Flag** | Flag set if the Resource is a Batch Load | - | - | - | Y | - | - | - |
| 9-Energy Market | 9 | 21 | **Breaker Status** | Status of the Breaker for the Resource | - | - | - | Y | - | - | - |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 6-Device and Qualification | 6 | 45 | **Breaker Status During Event** | Status of the Breaker for the Service Location during an Emergency Event | - | - | - | Y | - | - | - |
| 1-General Asset / Resource | 1 | 50 | **Business Segment** | SIC or NAICS code of the Service Location | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 43 | **Capable of Synchronizing to Grid** | Flag set if the Service Location is capable of Synchronizing to the Grid | - | - | - | Y | - | - | - |
| 11-Capacity Market | 11 | 991 | **Capacity Comments** | Comments associated with the Capacity market | - | - | - | Y | - | - | - |
| 11-Capacity Market | 11 | 31 | **Capacity Obligation Period** | Period of time for which the Capacity Resource is Obligated | Examples include: month, season, year, etc. | - | - | Y | - | - | - |
| 11-Capacity Market | 11 | 30 | **Capacity Obligation Period Type** | Type of Capacity Obligation Time Period within which the Resource is obligated | Examples are: All hours, Business hours 1, Business hours 2, Business Hours 3, Non-Business hours. | - | - | Y | - | - | - |
| 11-Capacity Market | 11 | 50 | **Capacity Reference ID** | Identifier assigned to the External System award | An Award is the selection of a Resource to provide energy, ancillary services, or capacity for a future time period. Expressed as a string. | - | - | Y | - | - | - |
| 11-Capacity Market | 11 | 41 | **Capacity Supply Obligation** | Capacity Obligation | This may result from an auction or other clearing mechanism. | - | - | Y | - | - | - |

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| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 11-Capacity Market | 11 | 10 | Capacity Type | Type of Capacity | Capacity Service is a type of Demand Response service in which Demand Resources are obligated over a defined period of time to be available to deliver upon deployment by the System Operator or Service Provider. Examples: Hourly, Monthly, etc. | - | - | Y | - | - | Y |
| 11-Capacity Market | 11 | 11 | Capacity Type description | Description of the Type of Capacity | - | - | - | Y | - | - | Y |
| 2-Location | 2 | 12 | City | City | - | - | - | Y | - | - | Y |
| 2-Location | 2 | 50 | Competitive Choice Area | Flag set if the Service Location is in an area with Competitive Choice | - | - | - | Y | - | - | - |
| 4-Grid Connection | 4 | 12 | Connect Voltage | Voltage level | Voltage at connection. | - | - | Y | - | - | - |
| 2-Location | 2 | 72 | Connection Address | Address associated with the Connection Type | Example: Address of ICCP Connection, IP address | - | - | Y | - | - | - |
| 2-Location | 2 | 71 | Connection Type | Additional type of connection associated with the Service Delivery Point | Example: ICCP Connection, IP address | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 72 | Constraint Interval | The timeframe over which the constraint type applies. | Typically daily, hourly, weekly, date | - | - | Y | - | - | Y |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 8-Offer Parameters | 8 | 71 | **Constraint Type** | Type of operational, schedule or offer constraint | Types of operational, offer or schedule parameters. Examples include: Select Operational Minimum Runtime, Schedule Minimum Runtime, Operational Maximum Runtime, Schedule Maximum Runtime, Minimum Load, Maximum Load, Minimum Downtime, Minimum Starts, Maximum Energy, Maximum Starts, Time of Day schedule constraints, Black out date, Maximum consecutive days of participation, Maximum calls per day, Minimum Advanced Notification, Minimum duration of participation, etc. | - | - | Y | - | - | Y |
| 8-Offer Parameters | 8 | 73 | **Constraint Value** | Value of the Constraint Type and Interval | - | - | - | Y | - | - | Y |
| 3-Contact | 3 | 31 | **Contact Address Data** | Method-dependent Address of the Contact | This identifies specific information required for the contact method selected. | - | - | Y | - | - | - |
| 3-Contact | 3 | 991 | **Contact Comments** | Comments associated with the Contact | - | - | - | Y | - | - | - |
| 3-Contact | 3 | 30 | **Contact Method** | Method of communication with the Contact | This identifies the various types of communication options (phone, email, etc.) to be used. | - | - | Y | - | - | - |
| 3-Contact | 3 | 32 | **Contact Method Priority** | Order in which a Communication Method should be selected for a Contact | A Communication Method is the medium by which an object communicates with another object for instruction, measurement, or control. The user specifies the sequence in which each medium is to be used when being contacted. | - | - | Y | - | - | - |

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| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 3-Contact | 3 | 23 | **Contact Middle Name** | Middle Name of the Contact | - | - | - | Y | - | - | - |
| 3-Contact | 3 | 11 | **Contact Priority** | Order in which this Contact should be selected | This is used when multiple contacts are defined. | - | - | Y | - | - | - |
| 3-Contact | 3 | 10 | **Contact Type** | Interest code associated with a Contact | This is a classification defining the function a particular contact serves. It supports "who to call for what needs" decisions. Examples are: Primary, Secondary, Billing, Third Party, and Authorized Representative. | - | - | Y | - | - | - |
| 2-Location | 2 | 15 | **Country** | Country | - | - | - | Y | - | - | Y |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 12-Event and Performance | 12 | 51 | **Criticality Level** | This field defines the level of criticality of this event. The action taken by load control devices for an event can be solely based on this value, or combination with other Load Control Event fields supported by this device. | For example, additional fields such as Average Load Adjustment Percentage, Duty Cycle, Cooling Temperature Offset, Heating Temperature Offset, Cooling Temperature Set Point or Heating Temperature Set Point can be used in combination with the Criticality level. Criticality Level Level Description Participation 0     Reserved 1     Green     Voluntary 2     1     Voluntary 3     2     Voluntary 4     3     Voluntary 5     4     Voluntary 6     5     Voluntary 7     Emergency     Mandatory 8     Planned Outage     Mandatory 9     Service Disconnect     Mandatory 0x0A to 0x0F     Utility Defined     Utility Defined | - | - | - | - | - | Y |
| 6-Device and Qualification | 6 | 291 | **CT Ratio** | Ratio of the Current Transformer | - | | | Y | - | - | - |
| 14-Price and Product | 14 | 15 | **Currency** | Economic unit of exchange in which the total price and price components are stated (e.g. dollars, euros) | - | Y | - | - | Y | - | Y |
| 6-Device and Qualification | 6 | 228 | **Date of Last Meter Test** | Date of Last Test of the Meter | - | - | - | Y | - | - | - |

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| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 7-Market / Program Enrollment | 7 | 31 | **Day Ahead Flag** | Flag set if the Resource will be participating in the Day-Ahead market | - | - | - | Y | - | - | - |
| 14-Price and Product | 14 | 38 | **Delivery Interval** | The duration over which the product is available for physical consumption | - | Y | - | - | Y | - | Y |
| 14-Price and Product | 14 | 37 | **Delivery Time** | Time at which the product is available for physical consumption | - | Y | - | - | Y | - | Y |
| 5-Business Entity Relationships | 5 | 14 | **Demand Response Controlling Entity** | - | An identifier for the Service Provider issuing the DR event deployment instructions. | - | - | - | - | - | Y |
| 5-Business Entity Relationships | 5 | 13 | **Demand Response Provider** | - | The entity that is responsible for delivering Demand reductions from Demand Resources and is compensated for providing such Demand Response products. | - | - | - | - | - | Y |
| 12-Event and Performance | 12 | 16 | **Deployment MW** | Absolute or relative Deployment quantity | Expressed as an absolute or relative (%) MW value. | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 11 | **Deployment Type** | Type of Deployment | Examples are: Advanced (Normal), Immediate, Audit/Test | - | - | Y | - | - | Y |
| 5-Business Entity Relationships | 5 | 80 | **Designated Dispatch Entity ID** | Identifier assigned to the Designated Dispatch Entity | The Designated Dispatch Entity receives and processes Demand Resource Dispatch instructions or market information and may provide response information. | - | - | Y | - | - | - |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 5-Business Entity Relationships | 5 | 81 | **Designated Dispatch Entity Name** | Name of the Designated Dispatch Entity | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 70 | **Device Class** | - | Note: From SEP2.0 Enumeration representing the Device Class to apply the current Load Control Event. 0 HVAC compressor or furnace 1 Strip Heaters/Baseboard Heaters 2 Water Heater 3 Pool Pump/Spa/Jacuzzi 4 Smart Appliances 5 Irrigation Pump 6 Managed Commercial & Industrial (C&I) loads 7 Simple misc. (Residential On/Off) loads 8 Exterior Lighting 9 Interior Lighting 10 Electric Vehicle 11 Generation Systems 12 to 15 Reserved | - | - | - | - | - | Y |
| 6-Device and Qualification | 6 | 991 | **Distributed Generator Comments** | Comments associated with the Distributed Generator | - | - | - | Y | - | - | - |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 6-Device and Qualification | 6 | 32 | **Distributed Generator Fuel Type** | Type of Fuel consumed by the Distributed Generator | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 34 | **Distributed Generator Manufacturer** | Manufacturer of the Distributed Generator | - | - | - | Y | - | - | Y |
| 6-Device and Qualification | 6 | 39 | **Distributed Generator Name** | Name of the Distributed Generator | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 33 | **Distributed Generator Permit Type** | Type of environmental authorization required to operate the Distributed Generator | The Environmental Authority is a regulatory authority responsible for the development, reporting, and enforcement of environmental activities. | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 30 | **Distributed Generator Type** | Type of Distributed Generator | This technology characteristic of the Distributed Generator, such as combined cycle, induction, etc. | - | - | Y | - | - | - |
| 9-Energy Market | 9 | 24 | **DR Bus Load MW** | Instantaneous Bus Load of a Demand Resource providing Ancillary Services | Demand is the rate at which electric energy is being used by the customer (NERC Definition). Expressed in MW. This element only applies to DR | - | - | Y | - | - | - |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 13-Direct Load Control | 13 | 11 | **DR Control Command: Direct Load Control Type** | The type of DR Direct Load Control Command: e.g. Set Point, Open/Close, Heating Temperature - offset/setpoint, Cooling Temperature - offset/setpoint, Load adjustment offset | - | - | - | - | - | - | Y |
| 13-Direct Load Control | 13 | 12 | **DR Control Command: Direct Load Control Value** | Value associated with the Direct Load Control Type. | - | - | - | - | - | - | Y |
| 1-General Asset / Resource | 1 | 22 | **DR Resource Group ID** | Grouping of Resources that can respond to the same DR signal | | - | - | - | - | - | Y |
| 3-Contact | 3 | 12 | **DUNS Number** | DUNS business number | - | - | - | Y | - | - | - |
| 13-Direct Load Control | 13 | 13 | **Duty Cycle** | "Duty Cycle : Defines the maximum On state duty cycle as a percentage of time. Example, if the value is 80, the device would be in an "on state" for 80% of the time for the duration of the event. Range of the value is 0 to 100. A value of 0xFF indicates the field | - | - | - | - | - | - | Y |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| | | | | is not used." (from SEP2.0) | | | | | | | |
| 7-Market / Program Enrollment | 7 | 21 | **Effective Enrollment Date** | Effective Start Date for the Enrollment | Market Enrollment is the collection of enrollment or tariff data for a Demand Resource to provide a specific market product or service. | - | - | Y | - | - | Y |
| 2-Location | 2 | 40 | **Electrical Node ID** | Identifier assigned to the Electrical Node at which the Service Location is connected | - | - | - | Y | - | - | Y |
| 2-Location | 2 | 41 | **Electrical Node Name** | Name of the Electrical Node at which the Service Location is connected | - | - | - | Y | - | - | Y |
| 2-Location | 2 | 42 | **Electrical Node Type** | Type of Electrical Node at which the Service Location is attached | - | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 24 | **Energy Baseline Timestamp** | Timestamp of Energy Baseline | - | - | - | Y | - | - | Y |

# RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE

For Quadrant: REQ
Requesters: Smart Grid Interoperability Panel
Request No.: 2010 REQ Annual Plan Item96
Request Title: Master Data Requirements List for Business Practice Standards associated with NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 12-Event and Performance | 12 | 23 | Energy Baseline Value | Calculated Energy Baseline | A Baseline is an estimate of the electricity that would have been consumed by a Demand Resource in the absence of a Demand Response Event. The Baseline is compared to the actual metered electricity consumption during the Demand Response Event to determine the Demand Modification Value. Depending on the type of Demand Response product or service, Baseline calculations may be performed in real time or after the fact. | - | - | Y | - | - | Y |
| 9-Energy Market | 9 | 13 | Energy Schedule - Cleared MW Interval Value | The Energy Value of cleared MW for the Time Interval within the Energy Schedule | The offered energy MW that have cleared the market. | - | - | Y | - | - | - |
| 9-Energy Market | 9 | 14 | Energy Schedule - Cleared Price | Awarded Price | The market clearing price for the cleared energy MW. | - | - | Y | - | - | - |
| 9-Energy Market | 9 | 11 | Energy Schedule - End Time | End Time of the Energy Schedule | A Schedule is an energy profile for a Resource for a future time period, by scheduling time interval (typically hourly). | - | - | Y | - | - | - |
| 9-Energy Market | 9 | 12 | Energy Schedule - Interval Start Time | Start Time of the Energy Interval within the Energy Schedule | The start time of a specific energy schedule interval | - | - | Y | - | - | - |
| 9-Energy Market | 9 | 10 | Energy Schedule - Start Time | Start Time of the Energy Schedule | A Schedule is an energy profile for a Resource for a future time period, by scheduling time interval (typically hourly). | - | - | Y | - | - | Y |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**
For Quadrant: REQ
Requesters: Smart Grid Interoperability Panel
Request No.: 2010 REQ Annual Plan Item96
Request Title: Master Data Requirements List for Business Practice Standards associated with NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 7-Market / Program Enrollment | 7 | 25 | **Enrollment End Date** | Date of Termination of Enrollment | - | - | - | Y | - | - | Y |
| 7-Market / Program Enrollment | 7 | 22 | **Enrollment Status** | Status of the Enrollment for the Facility or Resource | Examples: Pending Enrollment, Approved Enrollment, Under Review, Denied, Separated | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 991 | **Event & Performance comments** | Comments associated with Event and Performance data | - | - | - | Y | - | - | - |
| 13-Direct Load Control | 13 | 14 | **Event Control** | Event Control options for randomized start or end times: 1= Randomize Start time, 0=Randomized Start not Applied 1= Randomize End time, 0=Randomized End not Applied. (from SEP2.0) | - | - | - | - | - | - | Y |
| 12-Event and Performance | 12 | 12 | **Event Day** | Operating Date of Start of Event | - | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 13 | **Event Description** | Description of the Event | - | - | - | Y | - | - | - |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 12-Event and Performance | 12 | 18 | **Event End Time** | Time of End of deployment period | Release/Recall is the notification, sent from the System Operator or Service Demand Response Provider to the Demand Resource, that the Deployment Period has ended or announcing the time that it will end. | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 10 | **Event ID** | Identifier assigned to the Event | An Event consists of the time periods, deadlines, and transitions during which Demand Resources perform. The System Operator shall specify the duration and applicability of a Demand Response Event. Some deadlines, time periods, and transitions may not be not applicable to all products or services. | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 19 | **Event Modification Number** | A modification number for the DR event.  This is used to indicate if the DR Event has been modified by the Utility. Each time it is modified, this number is incremented. | - | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 112 | **Event Modification Reason Code** | The reason the event is being cancelled or modified. | - | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 14 | **Event Start Time** | Time of Start of deployment period for Event | The Deployment Period is the period of time from the Deployment to Release/Recall. | - | - | Y | - | - | Y |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**
For Quadrant:       REQ
Requesters:         Smart Grid Interoperability Panel
Request No.:        2010 REQ Annual Plan Item96
Request Title:      Master Data Requirements List for Business Practice Standards associated with
                    NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 12-Event and Performance | 12 | 17 | **Event Status** | Status of the Event | Examples include: inititiated, completed, etc. | - | - | Y | - | - | Y |
| 13-Direct Load Control | 13 | 15 | **Exception Conditions** | | This is used to report that the load controller may not behave as commanded because of a variety of conditions including: • Faults in device • Customer override. | - | - | - | - | - | Y |
| 5-Business Entity Relationships | 5 | 991 | **External Entity Comments** | Comments associated with the External Entity | - | - | - | Y | - | - | - |
| 3-Contact | 3 | 21 | **First Name** | First Name of the Contact | - | - | - | Y | - | - | - |
| 1-General Asset / Resource | 1 | 41 | **GenBillingID** | Billing Identifier assigned to the Resource | - | - | - | Y | - | - | - |
| 1-General Asset / Resource | 1 | 40 | **GenEMSID** | Alias or point Identifier assigned to the Resource | - | - | - | Y | - | - | - |
| 1-General Asset / Resource | 1 | 991 | **General Resource Comments** | General comments associated with the Resource | - | - | - | Y | - | - | - |
| 2-Location | 2 | 20 | **GPS Coordinates** | Latitude and longitude | - | - | - | Y | - | - | Y |
| 4-Grid Connection | 4 | 991 | **Grid Connection Comments** | Comments associated with the Grid Connection of the Resource | - | - | - | Y | - | - | - |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 10-Ancillary Service Market | 10 | 11 | Have Engineering Diagram | Flag set if One-Line Diagrams have been submitted | - | - | - | Y | - | - | - |
| 14-Price and Product | 14 | 13 | Identifier Source (product) | The Identifier Source references the product identification scheme for the Product Identifier. | - | Y | - | - | - | - | - |
| 6-Device and Qualification | 6 | 37 | In-Service Date | Date the Distributed Generator became operational | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 36 | Installation Date of Distributed Generator | Date of Installation of the Distributed Generator | - | - | - | Y | - | - | - |
| 9-Energy Market | 9 | 0 | Instruction ID | - | Unique identifier assigned to each instruction. | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 41 | Interconnection Agreement Type | Type of Interconnection Agreement between the Distributed Generator or Service Location and the TDSP | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 42 | Interconnection Limits | Limits associated with the Interconnection of the Distributed Generator or Service Location | - | - | - | Y | - | - | - |
| 3-Contact | 3 | 22 | Last Name | Last Name of the Contact | - | - | - | Y | - | - | - |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**

For Quadrant: REQ
Requesters: Smart Grid Interoperability Panel
Request No.: 2010 REQ Annual Plan Item96
Request Title: Master Data Requirements List for Business Practice Standards associated with NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 7-Market / Program Enrollment | 7 | 30 | **Lead Time** | Time between the advanced notification and deployment | Notification is the transmittal of a Deployment message. | - | - | Y | - | - | Y |
| 13-Direct Load Control | 13 | 16 | **Load Control State** | The state of the load, which includes both commanded states and user settings. This may include a schedule of future states if a particular control algorithm for the load controller is being executed. | - | - | - | - | - | - | Y |
| 12-Event and Performance | 12 | 113 | **Load Level Value** | Value of the load level to be achieved based on a set of enumerated values (e.g., moderate, high, etc.). | - | - | - | - | - | - | Y |
| 6-Device and Qualification | 6 | 52 | **Load Resource Control Device** | Type of Control Device at a Service Location or deployed by a Response Method | - | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 30 | **Load Serving Entity ID** | Identifier assigned to the LSE | The Load-Serving Entity serves end users and sells electric energy to end users. | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 31 | **Load Serving Entity Name** | Name of the LSE | - | - | - | Y | - | - | - |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**

For Quadrant:      REQ
Requesters:      Smart Grid Interoperability Panel
Request No.:      2010 REQ Annual Plan Item96
Request Title:      Master Data Requirements List for Business Practice Standards associated with NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale PAP 03 | Wholesale PAP 04 | Wholesale PAP 09 | Retail PAP 03 | Retail PAP 04 | Retail PAP 09 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Location | 2 | 991 | Location Comments | Comments associated with the Service Location | - | - | - | Y | - | - | - |
| 4-Grid Connection | 4 | 10 | Loss Factor Type | Type of Loss Factor | - | - | - | Y | - | - | - |
| 4-Grid Connection | 4 | 11 | Loss Factor Value | Loss Factor | Expressed as a decimal value. | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 35 | Manufactured Date of Distributed Generator | Date of Manufacturer of the Distributed Generator | | - | - | Y | - | - | Y |
| 7-Market / Program Enrollment | 7 | 12 | Market | Type of wholesale market | - | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 40 | Market Clearing Day | Market Clearing Day of the Offer | - | - | - | Y | - | - | - |
| 7-Market / Program Enrollment | 7 | 991 | Market Enrollment Comments | Comments associated with the Enrollment | - | - | - | Y | - | - | - |
| 7-Market / Program Enrollment | 7 | 13 | Market Product | Market Product | Product types include the following: energy, capacity, regulation, operating reserves (spinning or non-spin). | - | - | Y | - | - | Y |
| 6-Device and Qualification | 6 | 28 | Maximum Error | Error of the Meter, including end-to-end Maximum Error | - | - | - | Y | - | - | - |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**
For Quadrant:      REQ
Requesters:        Smart Grid Interoperability Panel
Request No.:       2010 REQ Annual Plan Item96
Request Title:     Master Data Requirements List for Business Practice Standards associated with
                   NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 6-Device and Qualification | 6 | 229 3 | **Measurement Interval** | Interval of time between Measurement readings | This is the time between electricity meter recordings. The Measurement records the consumption or supply of an End Device. An End Device is a physical end-use device that consumes or supplies electricity. | - | - | Y | - | - | - |
| 12-Event and Performance | 12 | 32 | **Measurement Value (CIM)** | Value of the interval reading | - | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 31 | **Measurement Value Timestamp (CIM)** | The time when the value was last updated | - | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 34 | **Measurement Value Type** | The type of measurement value. | The Measurement Value Type identifies the type of information provided in the Measurement Value. For example, the Measurement Value type could be energy (kWh/MWh) or demand (KW or MW). | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 26 | **Meter Accuracy Class** | Accuracy Class of the Meter | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 229 6 | **Meter Asset Comments** | Comments associated with the Meter Asset | - | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 60 | **Meter Authority ID** | Identifier assigned to the Metering Authority | The Metering Authority provides electric usage data necessary to determine the performance of a Resource. | - | - | Y | - | - | - |
| 5-Business Entity | 5 | 61 | **Meter Authority Name** | Name of the Metering Authority | - | - | - | Y | - | - | - |

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Requesters:       Smart Grid Interoperability Panel
Request No.:      2010 REQ Annual Plan Item96
Request Title:    Master Data Requirements List for Business Practice Standards associated with
                  NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| Relationships | | | | | | | | | | | |
| 6-Device and Qualification | 6 | 10 | **Meter Configuration** | Configuration of the Meter at the Facility | The CIM defines the Mater as the physical asset that performs the metering role of the ServiceDeliveryPoint. It is used for measuring consumption and detecting events. | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 224 | **Meter Correction Factors** | Device-specific Factors used to adjust for atmospheric changes at the point of installation of the Meter | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 227 | **Meter Device QA Plan** | Quality Assurance plan for maintenance and testing of the Meter | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 20 | **Meter ID** | Identifier assigned to the Meter | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 221 | **Meter Installation Date** | Date of Installation of the Meter | - | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 50 | **Meter Installation Provider ID** | Identifier assigned to the Meter Installation Provider | - | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 51 | **Meter Installation Provider Name** | Name of the Meter Installation Provider | This is the competitive meter entity for the meter device. | - | - | Y | - | - | - |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**
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Request No.:      2010 REQ Annual Plan Item96
Request Title:    Master Data Requirements List for Business Practice Standards associated with NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 6-Device and Qualification | 6 | 223 | **Meter Installer License** | Professional License Number of the Installer of the Meter | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 27 | **Meter Loss Compensation** | Line Losses included in the Meter | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 22 | **Meter Manufacturer** | Manufacturer of the Meter | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 23 | **Meter Model** | Model of the Meter | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 25 | **Meter Multiplier (kH)** | Multiplier used to convert pulses into power units | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 2295 | **Meter Owner** | Owner of the Meter | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 29 | **Meter Phase** | Specific Phase information | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 229 | **Meter Qualification Date** | Date of Qualification of the Meter by the Metering Authority or System Operator | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 24 | **Meter Rating** | Load Rating of the Meter | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 225 | **Meter Test Criteria** | Test Criteria required to qualify the installation of the Meter | - | - | - | Y | - | - | - |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale PAP 03 | Wholesale PAP 04 | Wholesale PAP 09 | Retail PAP 03 | Retail PAP 04 | Retail PAP 09 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6-Device and Qualification | 6 | 226 | **Meter Test Frequency** | Frequency of Tests of the Meter | Expressed in months. | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 2291 | **Meter Test Results** | Results of Tests of the Meter | These are specific to the meter type. | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 21 | **Meter Type** | Type of Meter installed at the Facility | Examples: RTU, CT/PT, etc. | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 21 | **Min Gen MW** | Minimum MW available for dispatch | When required as part of an enrollment request, this value acts as a default. | - | - | Y | - | - | Y |
| 8-Offer Parameters | 8 | 22 | **MinGenCost** | The cost per hour for each Min Gen MW value. | The cost per hour for each MinGenMW value. | - | - | Y | - | - | Y |
| 11-Capacity Market | 11 | 40 | **Minimum Payment Nomination** | Strike price for the economic dispatch of the energy component of the capacity program | Expressed in Price/MW. | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 31 | **Nameplate Rating** | Manufacturer's output rating of the Distributed Generator | - | - | - | Y | - | - | - |
| 0-Common Message Parameters | 0 | 20 | **NERC CIP Security - Availability** | CIP Security Classification for Availability | - | - | - | Y | - | - | - |
| 0-Common Message Parameters | 0 | 21 | **NERC CIP Security - Confidentiality** | CIP Security Classification for Confidentiality | - | - | - | Y | - | - | - |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 0-Common Message Parameters | 0 | 22 | **NERC CIP Security - Integrity** | CIP Security Classification for Integrity | - | - | - | Y | - | - | - |
| 2-Location | 2 | 60 | **NERC Control Area** | The NERC control area of the resource | - | - | - | Y | - | - | - |
| 11-Capacity Market | 11 | 23 | **Nominal Capacity** | Nominated load | Expressed as a decimal value. | - | - | Y | - | - | Y |
| 6-Device and Qualification | 6 | 44 | **Normal Breaker Status** | Status of the Breaker for the Service Location under Normal operating conditions | Normal Operations is the time following Release/Recall during which a System Operator or Service Provider may require a Demand Resource to have returned its Load consumption to normal levels and to be available again for Deployment. | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 38 | **Normal Load Rating** | Average load picked up by the Distributed Generator during the applicable performance hours | - | - | - | Y | - | - | - |
| 12-Event and Performance | 12 | 111 | **Notification Acknowledgement** | This is an acknowledgement of the receipt of a DR notification or dispatch. It should include any necessary provisions for non-repudiation. | - | - | - | Y | - | - | Y |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**

For Quadrant: REQ
Requesters: Smart Grid Interoperability Panel
Request No.: 2010 REQ Annual Plan Item96
Request Title: Master Data Requirements List for Business Practice Standards associated with NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 8-Offer Parameters | 8 | 38 | **Offer Commit Status** | Commitment status of offer | Product-specific commitment status types included with offer. Examples include: economic, emergency, must-run, not participating, outage run status, override status, etc. | - | - | Y | - | - | Y |
| 8-Offer Parameters | 8 | 39 | **Offer Dispatch Status** | Dispatch Status of Offer | Product-specific commitment status types included with offer. Examples include: economic, emergency, not participating, not qualified, and self-schedule.<br><br>May also be used to temporarily opt out of DR Events and to override the normal operational constraints. The opt-out can be specified using the following criteria:<br>• All events in a program indefinitely (unspecified time period)<br>• Specific DR Event<br>• All events in a specific time period.<br>• Other triggered programs for which an asset or DR resource is already called upon (reduce double counting of available capacity) | - | - | Y | - | - | Y |
| 8-Offer Parameters | 8 | 30 | **Offer Dispatch Type** | Type of Offer | Examples are Flexible (resource follows basepoint signals) or Fixed (resource requests DA commitment and RT schedules of 15 minutes or greater) | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 36 | **Offer Expiration Date** | Date of Expiration of the Offer | This applies to DAM only. | - | - | Y | - | - | - |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 8-Offer Parameters | 8 | 12 | **Offer Limit Interval** | Offer Limit Interval | The period over which the offer limit applies, i.e., hour, day, etc. | - | - | Y | - | - | Y |
| 8-Offer Parameters | 8 | 11 | **Offer Limit Type** | Type of Offer Limit | The limit may be associated with the bidding parameters of a resource. These may include limit types such as seasonal rating, reasonability, economic and ramp limits. | - | - | Y | - | - | Y |
| 8-Offer Parameters | 8 | 10 | **Offer Limit Value** | Offer Limit Value | Expressed in MW or hours. Multiple Limit Types are applicable. | - | - | Y | - | - | Y |
| 8-Offer Parameters | 8 | 331 | **Offer Price Curve Slope** | Flag to smoothe offer segments from step function to slope | - | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 33 | **Offer Segment Hour** | Hour of Segment of the Offer | NOTE: When required as part of an enrollment request, this value becomes the default. | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 31 | **Offer Segment MW** | Energy of Segment of the Offer | The end value of the offer step, monotonically increasing, expressed in MW (NOTE: When required as part of an enrollment request, this value becomes the default) | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 32 | **Offer Segment Price** | Price of Segment of the Offer | NOTE: When required as part of an enrollment request, this value becomes the default. | - | - | Y | - | - | - |
| 12-Event and Performance | 12 | 15 | **Operator Comment** | Additional Event information provided by the Operator | - | - | - | Y | - | - | - |
| 9-Energy Market | 9 | 23 | **Output MVAR** | Reactive Power Output of the Distributed Generator | Expressed in Mvar | - | - | Y | - | - | - |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 9-Energy Market | 9 | 22 | **Output MW** | Real Power Output of the Distributed Generator | Expressed in MW | - | - | Y | - | - | - |
| 14-Price and Product | 14 | 30 | **Override Unit of Measure** | Optional Attribute of Price object<br>If this is used, then Unit of Measure is not applicable | - | Y | - | - | - | - | - |
| 6-Device and Qualification | 6 | 11 | **Parent Meter id** | Flag set if the Meter is a Master or Parent Meter | - | - | - | Y | - | - | - |
| 11-Capacity Market | 11 | 22 | **Peak Date/Time** | Date and Time of measurement of Peak | - | - | - | Y | - | - | - |
| 11-Capacity Market | 11 | 21 | **Peak Type** | Type of measurement of Peak | Examples are: Annual, Monthly, Weekly, and Seasonal. | - | - | Y | - | - | - |
| 11-Capacity Market | 11 | 20 | **Peak Value** | Measurement of Peak | - | - | - | Y | - | - | - |
| 7-Market / Program Enrollment | 7 | 51 | **Performance Evaluation Method** | Method used to Evaluate the Performance of a Resource | Based on NAESB M&V terms. | - | - | Y | - | - | - |
| 7-Market / Program Enrollment | 7 | 50 | **Performance Evaluation Method Type Code** | Code representing the Type of Measurement | - | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 20 | **Physical Min Gen** | Minimum Operating Level of a Resource | - | - | - | Y | - | - | Y |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 2-Location | 2 | 43 | PNode | Name of the Price Node associated with the Service Location | The P-Node is the price location of the Service Location in the transmission and/or distribution network. | - | - | Y | - | - | Y |
| 2-Location | 2 | 44 | PNode ID | Identifier assigned to the Price Node associated with the Service Location | - | - | - | Y | - | - | Y |
| 8-Offer Parameters | 8 | 50 | Portfolio Name | Name of an aggregation of Resources for market participation | - | - | - | Y | - | - | - |
| 14-Price and Product | 14 | 33 | Price Component Type | The portion of the price to which the corresponding value applies. | Examples: Energy, congestion, losses | Y | - | - | - | - | - |
| 14-Price and Product | 14 | 34 | Price Component Value | The value of the price component. | - | Y | - | - | - | - | - |
| 14-Price and Product | 14 | 35 | Price Location | The location at which the price is applicable. | - | Y | - | - | - | - | - |
| 14-Price and Product | 14 | 36 | Price Type | Time characteristic of the price | The type of price (day-ahead, real-time, etc.). | Y | - | - | - | - | - |
| 6-Device and Qualification | 6 | 47 | Private Use Network ◄ | Flag set if the Resource is an Electric Network connected to the transmission grid | This is used for load that is typically netted with internal generation. | - | - | Y | - | - | - |
| 14-Price and Product | 14 | 20 | Product Identifier | Identifies specific product associated with the price | - | Y | - | - | Y | - | - |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**
For Quadrant:     REQ
Requesters:       Smart Grid Interoperability Panel
Request No.:      2010 REQ Annual Plan Item96
Request Title:    Master Data Requirements List for Business Practice Standards associated with
                  NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 14-Price and Product | 14 | 10 | **Product Name** | Same as 7.13 Market Product | An identifier for a particular electricity product offering: energy, capacity, ancillary services, etc. | Y | - | - | - | - | - |
| 14-Price and Product | 14 | 31 | **Product Price** | The sum of all Price Component Values for a given product (Total Price). | - | Y | - | - | - | - | Y |
| 14-Price and Product | 14 | 32 | **Product Price Factor** | Terms of use attribute of Product Price | Examples: Price_absolute, Price_relative, Price_multiplier | Y | - | - | Y | - | - |
| 14-Price and Product | 14 | 12 | **Product Sub-type** | Used to further define product types | - | Y | - | - | Y | - | - |
| 14-Price and Product | 14 | 11 | **Product Type** | Defines the source and product | Classifications used within industry for trading energy. Examples: PJM Energy, NYISO 10-min Spin, etc. | Y | - | - | - | - | Y |
| 7-Market / Program Enrollment | 7 | 10 | **Program ID** | Program Identifier | The identifier of the program | - | - | Y | - | - | Y |
| 7-Market / Program Enrollment | 7 | 11 | **Program Name** | Name of the Program | - | - | - | Y | - | - | Y |
| 6-Device and Qualification | 6 | 222 | **PT Ratio** | Ratio of the Potential Transformer | - | - | - | Y | - | - | - |
| 11-Capacity Market | 11 | 24 | **Qualified Capacity** | Nominal ICAP derated for performance | Derated based on past performance. | - | - | Y | - | - | Y |
| 8-Offer Parameters | 8 | 25 | **Ramp Rate Direction** | Direction of the selected Ramp Rate Type and Ramp Rate Segment | Valid directions are: Upward, Downward, Both. | - | - | Y | - | - | Y |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 8-Offer Parameters | 8 | 24 | **Ramp Rate Segment** | Energy of Segment of the Ramp Rate | The end value of the Ramp Rate step, monotonically increasing or decreasing (as indicated by the Ramp Rate Direction), expressed in MW (NOTE: When required as part of an enrollment request, this value becomes the default) | - | - | Y | - | - | Y |
| 8-Offer Parameters | 8 | 23 | **Ramp Rate Type** | Type of Ramp Rate | Examples are: Normal, Emergency, Regulation. | - | - | Y | - | - | Y |
| 8-Offer Parameters | 8 | 26 | **Ramp Rate Value** | Ramp Rate associated with the selected Ramp Rate Type for the selected Ramp Rate Segment and Ramp Rate Direction | The NERC definition of Ramp Rate is the rate, expressed in megawatts per minute, by which a generator changes its output. For a Demand Resource, the Ramp Rate is the rate, expressed in megawatts per minute, by which a Demand Resource changes its Load. | - | - | Y | - | - | Y |
| 7-Market / Program Enrollment | 7 | 32 | **Real Time Flag** | Flag set if the Resource will be participating in the Real-Time market | - | - | - | Y | - | - | - |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 10-Ancillary Service Market | 10 | 32 | **Regulation Base Point** | Per-interval Regulation dispatch instruction | Regulation Service is a type of Demand Response service in which a Demand Resource corrects for short-term changes in electricity use that might affect the stability of the power system, matching generation and load to maintain a desired frequency. Demand Resources providing Regulation Service are subject to dispatch continuously during a commitment period. Provision of Regulation Service does not correlate to Demand Response deployment terms of the Event timelines, deadlines and durations. | - | - | Y | - | - | - |
| 0-Common Message Parameters | 0 | 13 | **Rejection Code Type** | Type of rejection message | Rejection code type is categorizing the different kinds of rejection messages associated with enrollment, qualification, offers or meter data. May be combined with comments to provide details beyond the type of rejection. | - | - | Y | - | - | - |
| 0-Common Message Parameters | 0 | 14 | **Rejection Code Value** | Code referring to the reason for a rejection message | Rejection code related to the type of rejection. May be combined with comments to provide details beyond the type of rejection. | - | - | Y | - | - | - |
| 12-Event and Performance | 12 | 30 | **Reporting Interval** | Interval size required for Reporting | - | - | - | Y | - | - | Y |
| 10-Ancillary Service Market | 10 | 24 | **Requalification Requirement** | Flag set if Requalification is Required | - | - | - | Y | - | - | - |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**

For Quadrant: REQ
Requesters: Smart Grid Interoperability Panel
Request No.: 2010 REQ Annual Plan Item96
Request Title: Master Data Requirements List for Business Practice Standards associated with NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 7-Market / Program Enrollment | 7 | 26 | **Requalification Test Date** | Date the Resource will retest its ability to deliver a product or service | - | - | - | Y | - | - | Y |
| 10-Ancillary Service Market | 10 | 31 | **Reserve Pickup Flag** | Flag set if this is a Reserve Pickup schedule | Reserve Service is a type of Demand Response service in which Demand Resources are obligated to be available to provide Demand reduction Energy Service, based on reserve capacity requirements that are established to meet applicable reliability standards. Reserve Services are defined by short-term response rates (Ramp Period) and synchronization with the electricity grid (i.e., spinning and non-spinning reserves). | - | - | Y | - | - | - |
| 1-General Asset / Resource | 1 | 20 | **Resource ID** | Identifier assigned to the Resource | A Resource may be an individual asset or a group of assets that represent a dispatchable entity. | - | - | Y | - | - | Y |
| 1-General Asset / Resource | 1 | 21 | **Resource Name** | Name of the Resource | - | - | - | Y | - | - | - |
| 7-Market / Program Enrollment | 7 | 24 | **Resource Qualification Test Date** | Date the Resource demonstrated its ability to deliver a product or service | - | - | - | Y | - | - | Y |
| 7-Market / Program Enrollment | 7 | 23 | **Resource Type** | Type of Resource | Examples are: load reduction (curtailable or interruptible load), distributed generation, combination, renewable, storage, etc. | - | - | Y | - | - | Y |
| 7-Market / Program | 7 | 41 | **Response Method ID** | Identifier assigned to the Response Method | - | - | - | Y | - | - | - |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale PAP 03 | PAP 04 | PAP 09 | Retail PAP 03 | PAP 04 | PAP 09 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Enrollment | | | | | | | | | | | |
| 7-Market / Program Enrollment | 7 | 42 | **Response Method Name** | Name of the Response Method | - | - | - | Y | - | - | - |
| 7-Market / Program Enrollment | 7 | 40 | **Response Method Type** | Type of Response Method | Expressed as a response type code | - | - | Y | - | - | - |
| 7-Market / Program Enrollment | 7 | 43 | **Response Method Value** | Value of the Response Method | The Demand Response Value is the quantity of modified electrical consumption by a Demand Resource, expressed as MW. | - | - | Y | - | - | - |
| 7-Market / Program Enrollment | 7 | 34 | **Response Time** | The amount of time before an asset/resource is capable of meeting its full performance, in response to a request by a Service Provider to shed load. | - | - | - | - | - | - | Y |
| 12-Event and Performance | 12 | 33 | **Response Value** | Response | - | - | - | Y | - | - | Y |
| 5-Business Entity Relationships | 5 | 44 | **Retail Rate** | Retail Rate | Expressed as Price per kWh | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 41 | **Retail Rate Code** | Code representing the Retail Rate for the Service Location | - | - | - | Y | - | - | - |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**
For Quadrant: REQ
Requesters: Smart Grid Interoperability Panel
Request No.: 2010 REQ Annual Plan Item96
Request Title: Master Data Requirements List for Business Practice Standards associated with NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale PAP 03 | Wholesale PAP 04 | Wholesale PAP 09 | Retail PAP 03 | Retail PAP 04 | Retail PAP 09 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5-Business Entity Relationships | 5 | 43 | Retail Rate Description | Description of the Retail Rate | This can also be used for comments associated with the Retail Rate. | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 40 | Retail Rate ID | Identifier assigned to the Retail Rate | - | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 42 | Retail Rate Name | Name of the Retail Rate for the Service Location | - | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 42 | Schedule Description | Description of the Offer | - | - | - | Y | - | - | - |
| 9-Energy Market | 9 | 15 | Schedule ID | - | Unique identifier assigned to each schedule. | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 41 | Schedule Name | Name or tag of the Offer | - | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 43 | Schedule Status | Status of the Offer | - | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 70 | Scheduling Entity ID | Identifier assigned to the Scheduling Entity | A Scheduling Entity submits bids and/or offers and receives Schedules and Awards. | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 71 | Scheduling Entity Name | Name of the Scheduling Entity | - | - | - | Y | - | - | - |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**

For Quadrant: REQ
Requesters: Smart Grid Interoperability Panel
Request No.: 2010 REQ Annual Plan Item96
Request Title: Master Data Requirements List for Business Practice Standards associated with NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 7-Market / Program Enrollment | 7 | 33 | **Self-Schedule Flag** | Flag set if the Resource is Self-Deploying | Self-Deployment is the Deployment via established Communication Methods initiated by the Service Provider or the Resource. | - | - | Y | - | - | - |
| 1-General Asset / Resource | 1 | 10 | **Service Location ID** | Identifier assigned to the Service Location | The location at which connection to the transmission or distribution system is made. | - | - | Y | - | - | Y |
| 1-General Asset / Resource | 1 | 11 | **Service Location Name** | Name of the Service Location | - | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 11 | **Service Provider ID** | Identifier assigned to the Service Provider | The Service Provider coordinates Resources to deliver electricity products and services to a market or distribution operator. | - | - | Y | - | - | Y |
| 5-Business Entity Relationships | 5 | 12 | **Service Provider Name** | Name of the Service Provider | - | - | - | Y | - | - | - |
| 9-Energy Market | 9 | 25 | **Set Point** | Final dispatch target level | The real-time desired MW output signal calculated for a specific Resource by the Transmission Provider's control system on a specified periodicity that is equal to the current Energy Dispatch Target plus the Regulating Reserve Deployment instruction (which may be positive or negative) plus an adjustment to the Energy Dispatch Target to account for Contingency Reserve Deployment Instructions. The Setpoint Instruction represents the desired output level of the Resource. | - | - | Y | - | - | - |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**

For Quadrant: REQ
Requesters: Smart Grid Interoperability Panel
Request No.: 2010 REQ Annual Plan Item96
Request Title: Master Data Requirements List for Business Practice Standards associated with NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 12-Event and Performance | 12 | 50 | Simple Signal Levels | Used as an alternate and simplified representation of the DR signal, whether it be price based or a dispatch. Takes on a small number of finite levels such as NORMAL, MODERATE, and HIGH, SPECIAL | - | - | - | - | - | - | Y |
| 14-Price and Product | 14 | 40 | Source Location Identifier | The identifier of the source location of the product for which the price applies | - | Y | - | - | Y | - | - |
| 14-Price and Product | 14 | 41 | Source Location Identifier Type | The type of source location of the product for which the price applies | - | Y | - | - | - | - | - |
| 8-Offer Parameters | 8 | 34 | Startup Cost | Cost of starting a response activity | NOTE: When required as part of an enrollment request, this value becomes the default. | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 37 | Startup Cost Type | Type of startup cost | The type of Start Up Cost included in the offer. Options may include: Select cold, intermediate, hot or shutdown. | - | - | Y | - | - | - |
| 2-Location | 2 | 13 | State/Province | State or Province two-letter code | - | - | - | Y | - | - | Y |
| 13-Direct Load Control | 13 | 10 | Status Check | A signal to require the DR resource status to be sent back. | - | - | - | - | - | - | Y |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale PAP 03 | Wholesale PAP 04 | Wholesale PAP 09 | Retail PAP 03 | Retail PAP 04 | Retail PAP 09 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (Only applicable to Direct Load Control) | | | | | | | |
| 8-Offer Parameters | 8 | 35 | Strike Price | Threshold Price | Expressed as a decimal value of price/MW. | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 332 | Strike Price Type | Type of strike price | Indicates the type of strike price. Options may include: buy or sell. | - | - | Y | - | - | - |
| 0-Common Message Parameters | 0 | 10 | Submittal Date | Timestamp for the sender's use | - | - | - | Y | - | - | - |
| 0-Common Message Parameters | 0 | 11 | Submitted By | User ID of submitter | Common data element to indicate the user ID of the entity submitting the data | - | - | Y | - | - | - |
| 0-Common Message Parameters | 0 | 12 | Submitted Error | ID of submission error detected | Common data element to capture any errors or exceptions during submission | - | - | Y | - | - | - |
| 10-Ancillary Service Market | 10 | 21 | Synchronization Test Date | Target Date of Test of Synchronization to the grid | - | - | - | Y | - | - | - |
| 3-Contact | 3 | 13 | Third Party | Flag set if the Contact is a third-party entity | - | - | - | Y | - | - | - |
| 2-Location | 2 | 22 | Time Zone Name | Name of the Time Zone in which the Service Location is located | - | - | - | Y | - | - | - |
| 3-Contact | 3 | 20 | Title | Title of the Contact | - | - | - | Y | - | - | - |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**

For Quadrant: REQ
Requesters: Smart Grid Interoperability Panel
Request No.: 2010 REQ Annual Plan Item96
Request Title: Master Data Requirements List for Business Practice Standards associated with NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 5-Business Entity Relationships | 5 | 22 | Transmission / Distribution Service Provider Account Number | Transmission / Distribution Service Provider's account number for the Resource | - | - | - | Y | - | - | Y |
| 5-Business Entity Relationships | 5 | 20 | Transmission / Distribution Service Provider ID | Identifier assigned to the Transmission / Distribution Service Provider | The Transmission / Distribution Service Provider operates a local electricity transmission and/or distribution system. | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 21 | Transmission / Distribution Service Provider Name | Name of the Transmission / Distribution Service Provider | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 51 | UFR Settings | Setting of the Under-Frequency Relay | - | - | - | Y | - | - | - |
| 14-Price and Product | 14 | 14 | Unit of Measure | Attribute of Product Identifier | - | Y | - | - | - | - | Y |
| 12-Event and Performance | 12 | 52 | Usage Information | Information about the near real time electricity usage of the DR Resource. | - | - | - | - | - | - | Y |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 6-Device and Qualification | 6 | 2292 | VEE Compliance | Compliance standard for Validation, Editing, and Estimation | Validation, Editing, and Estimation is the process of taking raw meter data and performing validation and, as necessary, editing and estimation of corrupt or missing data, to create validated data. VEE guidelines are published in the Edison Electric Institute's Uniform Business Practices for Unbundled Electricity Metering, Volume Two, Published 12/05/00, http://www.naesb.org/REQ/req_form.asp. | - | - | Y | - | - | - |
| 7-Market / Program Enrollment | 7 | 44 | Verified Capability | Audited Capability | Auditing is the validation of performance, conducted by the System Operator, of certain Response Aggregation Methods AFTER the Enrollment process. | - | - | Y | - | - | - |
| 7-Market / Program Enrollment | 7 | 45 | Verified Capability Factor | Ratio of the Verified Capability to the qualified capability | Qualification is the validation of performance, conducted by the System Operator, of certain Response Aggregation Methods DURING the Enrollment process. | - | - | Y | - | - | - |
| 2-Location | 2 | 21 | Weather Station | Weather Station code associated with the Service Location | - | - | - | Y | - | - | Y |
| 6-Device and Qualification | 6 | 46 | Wholesale Delivery Point Status | Flag set if the Service Location is metered at the Wholesale level | - | - | - | Y | - | - | - |
| 2-Location | 2 | 14 | Zip/Postal Code | Zip or Postal Code | - | - | - | Y | - | - | Y |
| 2-Location | 2 | 31 | Zone | Name of the Zone in which the Service Location is | A Zone is a physical or electrical region. | - | - | Y | - | - | Y |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| | | | | located | | | | | | | |
| 2-Location | 2 | 30 | **Zone ID** | Identifier assigned to the Zone in which the Service Location is located | - | - | - | Y | - | - | Y |
| 2-Location | 2 | 32 | **Zone Type** | Type of Zone | Examples: Capacity, Dispatch, Price, Load, etc. | - | - | Y | - | - | - |

## Listing by Category ID and Category Element ID

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 0-Common Message Parameters | **0** | - | **Common Message Parameters** | | - | - | - | - | - | - | - |
| 0-Common Message Parameters | 0 | 10 | **Submittal Date** | Timestamp for the sender's use | - | - | - | Y | - | - | - |
| 0-Common Message Parameters | 0 | 11 | **Submitted By** | User ID of submitter | Common data element to indicate the user ID of the entity submitting the data | - | - | Y | - | - | - |
| 0-Common Message Parameters | 0 | 12 | **Submitted Error** | ID of submission error detected | Common data element to capture any errors or exceptions during submission | - | - | Y | - | - | - |
| 0-Common Message Parameters | 0 | 13 | **Rejection Code Type** | Type of rejection message | Rejection code type is categorizing the different kinds of rejection messages associated with enrollment, qualification, offers or meter data. May be combined with comments to provide details beyond the type of rejection. | - | - | Y | - | - | - |
| 0-Common Message Parameters | 0 | 14 | **Rejection Code Value** | Code referring to the reason for a rejection message | Rejection code related to the type of rejection. May be combined with comments to provide details beyond the type of rejection. | - | - | Y | - | - | - |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 0-Common Message Parameters | 0 | 20 | **NERC CIP Security - Availability** | CIP Security Classification for Availability | - | - | - | Y | - | - | - |
| 0-Common Message Parameters | 0 | 21 | **NERC CIP Security - Confidentiality** | CIP Security Classification for Confidentiality | - | - | - | Y | - | - | - |
| 0-Common Message Parameters | 0 | 22 | **NERC CIP Security - Integrity** | CIP Security Classification for Integrity | - | - | - | Y | - | - | - |
| 1-General Asset / Resource | 1 | - | **General Asset/Resource** | - | - | - | - | - | - | - | - |
| 1-General Asset / Resource | 1 | 10 | **Service Location ID** | Identifier assigned to the Service Location | The location at which connection to the transmission or distribution system is made. | - | - | Y | - | - | Y |
| 1-General Asset / Resource | 1 | 11 | **Service Location Name** | Name of the Service Location | - | - | - | Y | - | - | - |
| 1-General Asset / Resource | 1 | 12 | **Asset ID** | The unique identifier of the asset | - | - | - | Y | - | - | Y |
| 1-General Asset / Resource | 1 | 13 | **Asset Name** | The name of the asset | - | - | - | Y | - | - | - |
| 1-General Asset / Resource | 1 | 20 | **Resource ID** | Identifier assigned to the Resource | A Resource may be an individual asset or a group of assets that represent a dispatchable entity. | - | - | Y | - | - | Y |
| 1-General Asset / Resource | 1 | 21 | **Resource Name** | Name of the Resource | - | - | - | Y | - | - | - |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**
For Quadrant:       REQ
Requesters:         Smart Grid Interoperability Panel
Request No.:        2010 REQ Annual Plan Item96
Request Title:      Master Data Requirements List for Business Practice Standards associated with
                    NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale PAP 03 | Wholesale PAP 04 | Wholesale PAP 09 | Retail PAP 03 | Retail PAP 04 | Retail PAP 09 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1-General Asset / Resource | 1 | 22 | DR Resource Group ID | Grouping of Resources that can respond to the same DR signal | - | - | - | - | - | - | Y |
| 1-General Asset / Resource | 1 | 30 | Asset Group ID | The identifier of a group of assets | An Asset Group is a logical entity that has a reportable interval-level consumption. | - | - | Y | - | - | Y |
| 1-General Asset / Resource | 1 | 31 | Asset Group Name | Name of the aggregated group of assets | - | - | - | Y | - | - | Y |
| 1-General Asset / Resource | 1 | 40 | GenEMSID | Alias or point Identifier assigned to the Resource | - | - | - | Y | - | - | - |
| 1-General Asset / Resource | 1 | 41 | GenBillingID | Billing Identifier assigned to the Resource | - | - | - | Y | - | - | - |
| 1-General Asset / Resource | 1 | 50 | Business Segment | SIC or NAICS code of the Service Location | - | - | - | Y | - | - | - |
| 1-General Asset / Resource | 1 | 51 | Batch Load Flag | Flag set if the Resource is a Batch Load | - | - | - | Y | - | - | - |
| 1-General Asset / Resource | 1 | 991 | General Resource Comments | General comments associated with the Resource | - | - | - | Y | - | - | - |
| 2-Location | 2 | - | Location | - | - | - | - | - | - | - | - |
| 2-Location | 2 | 10 | Address1 | Address line 1 | - | - | - | Y | - | - | Y |
| 2-Location | 2 | 11 | Address2 | Address line 2 | - | - | - | Y | - | - | Y |
| 2-Location | 2 | 12 | City | City | - | - | - | Y | - | - | Y |
| 2-Location | 2 | 13 | State/Province | State or Province two-letter code | - | - | - | Y | - | - | Y |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**
For Quadrant:    REQ
Requesters:    Smart Grid Interoperability Panel
Request No.:    2010 REQ Annual Plan Item96
Request Title:    Master Data Requirements List for Business Practice Standards associated with NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale PAP 03 | Wholesale PAP 04 | Wholesale PAP 09 | Retail PAP 03 | Retail PAP 04 | Retail PAP 09 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Location | 2 | 14 | **Zip/Postal Code** | Zip or Postal Code | - | - | - | Y | - | - | Y |
| 2-Location | 2 | 15 | **Country** | Country | - | - | - | Y | - | - | Y |
| 2-Location | 2 | 20 | **GPS Coordinates** | Latitude and longitude | - | - | - | Y | - | - | Y |
| 2-Location | 2 | 21 | **Weather Station** | Weather Station code associated with the Service Location | - | - | - | Y | - | - | Y |
| 2-Location | 2 | 22 | **Time Zone Name** | Name of the Time Zone in which the Service Location is located | - | - | - | Y | - | - | - |
| 2-Location | 2 | 30 | **Zone ID** | Identifier assigned to the Zone in which the Service Location is located | - | - | - | Y | - | - | Y |
| 2-Location | 2 | 31 | **Zone** | Name of the Zone in which the Service Location is located | A Zone is a physical or electrical region. | - | - | Y | - | - | Y |
| 2-Location | 2 | 32 | **Zone Type** | Type of Zone | Examples: Capacity, Dispatch, Price, Load, etc. | - | - | Y | - | - | - |
| 2-Location | 2 | 40 | **Electrical Node ID** | Identifier assigned to the Electrical Node at which the Service Location is connected | - | - | - | Y | - | - | Y |
| 2-Location | 2 | 41 | **Electrical Node Name** | Name of the Electrical Node at which the Service Location is connected | - | - | - | Y | - | - | Y |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**
For Quadrant: REQ
Requesters: Smart Grid Interoperability Panel
Request No.: 2010 REQ Annual Plan Item96
Request Title: Master Data Requirements List for Business Practice Standards associated with NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale PAP 03 | Wholesale PAP 04 | Wholesale PAP 09 | Retail PAP 03 | Retail PAP 04 | Retail PAP 09 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Location | 2 | 42 | Electrical Node Type | Type of Electrical Node at which the Service Location is attached | - | - | - | Y | - | - | Y |
| 2-Location | 2 | 43 | PNode | Name of the Price Node associated with the Service Location | The P-Node is the price location of the Service Location in the transmission and/or distribution network. | - | - | Y | - | - | Y |
| 2-Location | 2 | 44 | PNode ID | Identifier assigned to the Price Node associated with the Service Location | - | - | - | Y | - | - | Y |
| 2-Location | 2 | 50 | Competitive Choice Area | Flag set if the Service Location is in an area with Competitive Choice | - | - | - | Y | - | - | - |
| 2-Location | 2 | 51 | Asset Multiplier | Number of identical Assets within the Service Location | - | - | - | Y | - | - | - |
| 2-Location | 2 | 60 | NERC Control Area | The NERC control area of the resource | - | - | - | Y | - | - | - |
| 2-Location | 2 | 71 | Connection Type | Additional type of connection associated with the Service Delivery Point | Example: ICCP Connection, IP address | - | - | Y | - | - | - |
| 2-Location | 2 | 72 | Connection Address | Address associated with the Connection Type | Example: Address of ICCP Connection, IP address | - | - | Y | - | - | - |
| 2-Location | 2 | 991 | Location Comments | Comments associated with the Service Location | - | - | - | Y | - | - | - |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 3-Contact | 3 | - | Contact | - | - | - | - | - | - | - | - |
| 3-Contact | 3 | 10 | **Contact Type** | Interest code associated with a Contact | This is a classification defining the function a particular contact serves. It supports "who to call for what needs" decisions. Examples are: Primary, Secondary, Billing, Third Party, and Authorized Representative. | - | - | Y | - | - | - |
| 3-Contact | 3 | 11 | **Contact Priority** | Order in which this Contact should be selected | This is used when multiple contacts are defined. | - | - | Y | - | - | - |
| 3-Contact | 3 | 12 | **DUNS Number** | DUNS business number | - | - | - | Y | - | - | - |
| 3-Contact | 3 | 13 | **Third Party** | Flag set if the Contact is a third-party entity | - | - | - | Y | - | - | - |
| 3-Contact | 3 | 20 | **Title** | Title of the Contact | - | - | - | Y | - | - | - |
| 3-Contact | 3 | 21 | **First Name** | First Name of the Contact | - | - | - | Y | - | - | - |
| 3-Contact | 3 | 22 | **Last Name** | Last Name of the Contact | - | - | - | Y | - | - | - |
| 3-Contact | 3 | 23 | **Contact Middle Name** | Middle Name of the Contact | - | - | - | Y | - | - | - |
| 3-Contact | 3 | 30 | **Contact Method** | Method of communication with the Contact | This identifies the various types of communication options (phone, email, etc.) to be used. | - | - | Y | - | - | - |
| 3-Contact | 3 | 31 | **Contact Address Data** | Method-dependent Address of the Contact | This identifies specific information required for the contact method selected. | - | - | Y | - | - | - |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 3-Contact | 3 | 32 | **Contact Method Priority** | Order in which a Communication Method should be selected for a Contact | A Communication Method is the medium by which an object communicates with another object for instruction, measurement, or control. The user specifies the sequence in which each medium is to be used when being contacted. | - | - | Y | - | - | - |
| 3-Contact | 3 | 991 | **Contact Comments** | Comments associated with the Contact | - | - | - | Y | - | - | - |
| 4-Grid Connection | 4 | - | **Grid Connection** | - | - | - | - | - | - | - | - |
| 4-Grid Connection | 4 | 10 | **Loss Factor Type** | Type of Loss Factor | - | - | - | Y | - | - | - |
| 4-Grid Connection | 4 | 11 | **Loss Factor Value** | Loss Factor | Expressed as a decimal value. | - | - | Y | - | - | - |
| 4-Grid Connection | 4 | 12 | **Connect Voltage** | Voltage level | Voltage at connection. | - | - | Y | - | - | - |
| 4-Grid Connection | 4 | 991 | **Grid Connection Comments** | Comments associated with the Grid Connection of the Resource | - | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | - | **Business Entity Relationships** | - | - | - | - | - | - | - | - |
| 5-Business Entity Relationships | 5 | 11 | **Service Provider ID** | Identifier assigned to the Service Provider | The Service Provider coordinates Resources to deliver electricity products and services to a market or distribution operator. | - | - | Y | - | - | Y |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 5-Business Entity Relationships | 5 | 12 | **Service Provider Name** | Name of the Service Provider | - | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 13 | **Demand Response Provider** | - | The entity that is responsible for delivering Demand reductions from Demand Resources and is compensated for providing such Demand Response products. | - | - | - | - | - | Y |
| 5-Business Entity Relationships | 5 | 14 | **Demand Response Controlling Entity** | - | An identifier for the Service Provider issuing the DR event deployment instructions. | - | - | - | - | - | Y |
| 5-Business Entity Relationships | 5 | 20 | **Transmission / Distribution Service Provider ID** | Identifier assigned to the Transmission / Distribution Service Provider | The Transmission / Distribution Service Provider operates a local electricity transmission and/or distribution system. | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 21 | **Transmission / Distribution Service Provider Name** | Name of the Transmission / Distribution Service Provider | - | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 22 | **Transmission / Distribution Service Provider Account Number** | Transmission / Distribution Service Provider's account number for the Resource | - | - | - | Y | - | - | Y |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**
For Quadrant:     REQ
Requesters:       Smart Grid Interoperability Panel
Request No.:      2010 REQ Annual Plan Item96
Request Title:    Master Data Requirements List for Business Practice Standards associated with
                  NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 5-Business Entity Relationships | 5 | 30 | **Load Serving Entity ID** | Identifier assigned to the LSE | The Load-Serving Entity serves end users and sells electric energy to end users. | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 31 | **Load Serving Entity Name** | Name of the LSE | - | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 40 | **Retail Rate ID** | Identifier assigned to the Retail Rate | - | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 41 | **Retail Rate Code** | Code representing the Retail Rate for the Service Location | - | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 42 | **Retail Rate Name** | Name of the Retail Rate for the Service Location | - | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 43 | **Retail Rate Description** | Description of the Retail Rate | This can also be used for comments associated with the Retail Rate. | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 44 | **Retail Rate** | Retail Rate | Expressed as Price per kWh | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 50 | **Meter Installation Provider ID** | Identifier assigned to the Meter Installation Provider | - | - | - | Y | - | - | - |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale PAP 03 | Wholesale PAP 04 | Wholesale PAP 09 | Retail PAP 03 | Retail PAP 04 | Retail PAP 09 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5-Business Entity Relationships | 5 | 51 | Meter Installation Provider Name | Name of the Meter Installation Provider | This is the competitive meter entity for the meter device. | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 60 | Meter Authority ID | Identifier assigned to the Metering Authority | The Metering Authority provides electric usage data necessary to determine the performance of a Resource. | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 61 | Meter Authority Name | Name of the Metering Authority | - | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 70 | Scheduling Entity ID | Identifier assigned to the Scheduling Entity | A Scheduling Entity submits bids and/or offers and receives Schedules and Awards. | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 71 | Scheduling Entity Name | Name of the Scheduling Entity | - | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 80 | Designated Dispatch Entity ID | Identifier assigned to the Designated Dispatch Entity | The Designated Dispatch Entity receives and processes Demand Resource Dispatch instructions or market information and may provide response information. | - | - | Y | - | - | - |
| 5-Business Entity Relationships | 5 | 81 | Designated Dispatch Entity Name | Name of the Designated Dispatch Entity | - | - | - | Y | - | - | - |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**
For Quadrant:       REQ
Requesters:         Smart Grid Interoperability Panel
Request No.:        2010 REQ Annual Plan Item96
Request Title:      Master Data Requirements List for Business Practice Standards associated with
                    NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 5-Business Entity Relationships | 5 | 90 | **Asset Operator ID** | The identifier of the business entity that operates the DR assets. This is the entity that has physical control of the asset and control of the capability to participate in DR Events. | - | - | - | - | - | - | Y |
| 5-Business Entity Relationships | 5 | 91 | **Asset Operator Name** | The name of the business entity that operates the DR assets. This is the entity that has physical control of the asset and control of the capability to participate in DR Events. | - | - | - | - | - | - | Y |
| 5-Business Entity Relationships | 5 | 92 | **Asset Owner ID** | The Identifier of the business entity that owns the DR assets (entity that has the right to use or transfer use of the asset). | - | - | - | - | - | - | Y |
| 5-Business Entity Relationships | 5 | 93 | **Asset Owner Name** | The Name of business entity that owns the DR assets (entity that has the right to use or transfer use of the asset). | - | - | - | - | - | - | Y |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 5-Business Entity Relationships | 5 | 991 | **External Entity Comments** | Comments associated with the External Entity | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | - | Device and Qualification | - | - | - | - | - | - | - | - |
| 6-Device and Qualification | 6 | 10 | **Meter Configuration** | Configuration of the Meter at the Facility | The CIM defines the Mater as the physical asset that performs the metering role of the ServiceDeliveryPoint. It is used for measuring consumption and detecting events. | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 11 | **Parent Meter id** | Flag set if the Meter is a Master or Parent Meter | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 20 | **Meter ID** | Identifier assigned to the Meter | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 21 | **Meter Type** | Type of Meter installed at the Facility | Examples: RTU, CT/PT, etc. | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 22 | **Meter Manufacturer** | Manufacturer of the Meter | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 221 | **Meter Installation Date** | Date of Installation of the Meter | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 222 | **PT Ratio** | Ratio of the Potential Transformer | - | - | - | Y | - | - | - |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**
For Quadrant:     REQ
Requesters:        Smart Grid Interoperability Panel
Request No.:       2010 REQ Annual Plan Item96
Request Title:     Master Data Requirements List for Business Practice Standards associated with
                   NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 6-Device and Qualification | 6 | 223 | **Meter Installer License** | Professional License Number of the Installer of the Meter | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 224 | **Meter Correction Factors** | Device-specific Factors used to adjust for atmospheric changes at the point of installation of the Meter | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 225 | **Meter Test Criteria** | Test Criteria required to qualify the installation of the Meter | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 226 | **Meter Test Frequency** | Frequency of Tests of the Meter | Expressed in months. | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 227 | **Meter Device QA Plan** | Quality Assurance plan for maintenance and testing of the Meter | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 228 | **Date of Last Meter Test** | Date of Last Test of the Meter | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 229 | **Meter Qualification Date** | Date of Qualification of the Meter by the Metering Authority or System Operator | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 2291 | **Meter Test Results** | Results of Tests of the Meter | These are specific to the meter type. | - | - | Y | - | - | - |

# RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE

For Quadrant: REQ
Requesters: Smart Grid Interoperability Panel
Request No.: 2010 REQ Annual Plan Item96
Request Title: Master Data Requirements List for Business Practice Standards associated with NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 6-Device and Qualification | 6 | 2292 | VEE Compliance | Compliance standard for Validation, Editing, and Estimation | Validation, Editing, and Estimation is the process of taking raw meter data and performing validation and, as necessary, editing and estimation of corrupt or missing data, to create validated data. VEE guidelines are published in the Edison Electric Institute's Uniform Business Practices for Unbundled Electricity Metering, Volume Two, Published 12/05/00, http://www.naesb.org/REQ/req_form.asp. | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 2293 | Measurement Interval | Interval of time between Measurement readings | This is the time between electricity meter recordings. The Measurement records the consumption or supply of an End Device. An End Device is a physical end-use device that consumes or supplies electricity. | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 2294 | ANSI Compliance | ANSI standard with which the Meter complies | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 2295 | Meter Owner | Owner of the Meter | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 2296 | Meter Asset Comments | Comments associated with the Meter Asset | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 23 | Meter Model | Model of the Meter | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 24 | Meter Rating | Load Rating of the Meter | - | - | - | Y | - | - | - |

# RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE

For Quadrant: REQ
Requesters: Smart Grid Interoperability Panel
Request No.: 2010 REQ Annual Plan Item96
Request Title: Master Data Requirements List for Business Practice Standards associated with NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 6-Device and Qualification | 6 | 25 | Meter Multiplier (kH) | Multiplier used to convert pulses into power units | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 26 | Meter Accuracy Class | Accuracy Class of the Meter | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 27 | Meter Loss Compensation | Line Losses included in the Meter | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 28 | Maximum Error | Error of the Meter, including end-to-end Maximum Error | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 29 | Meter Phase | Specific Phase information | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 291 | CT Ratio | Ratio of the Current Transformer | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 30 | Distributed Generator Type | Type of Distributed Generator | This technology characteristic of the Distributed Generator, such as combined cycle, induction, etc. | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 31 | Nameplate Rating | Manufacturer's output rating of the Distributed Generator | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 32 | Distributed Generator Fuel Type | Type of Fuel consumed by the Distributed Generator | - | - | - | Y | - | - | - |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**

For Quadrant: REQ
Requesters: Smart Grid Interoperability Panel
Request No.: 2010 REQ Annual Plan Item96
Request Title: Master Data Requirements List for Business Practice Standards associated with NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 6-Device and Qualification | 6 | 33 | Distributed Generator Permit Type | Type of environmental authorization required to operate the Distributed Generator | The Environmental Authority is a regulatory authority responsible for the development, reporting, and enforcement of environmental activities. | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 34 | Distributed Generator Manufacturer | Manufacturer of the Distributed Generator | - | - | - | Y | - | - | Y |
| 6-Device and Qualification | 6 | 35 | Manufactured Date of Distributed Generator | Date of Manufacturer of the Distributed Generator | - | - | - | Y | - | - | Y |
| 6-Device and Qualification | 6 | 36 | Installation Date of Distributed Generator | Date of Installation of the Distributed Generator | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 37 | In-Service Date | Date the Distributed Generator became operational | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 38 | Normal Load Rating | Average load picked up by the Distributed Generator during the applicable performance hours | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 39 | Distributed Generator Name | Name of the Distributed Generator | - | - | - | Y | - | - | - |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 6-Device and Qualification | 6 | 41 | **Interconnection Agreement Type** | Type of Interconnection Agreement between the Distributed Generator or Service Location and the TDSP | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 42 | **Interconnection Limits** | Limits associated with the Interconnection of the Distributed Generator or Service Location | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 43 | **Capable of Synchronizing to Grid** | Flag set if the Service Location is capable of Synchronizing to the Grid | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 44 | **Normal Breaker Status** | Status of the Breaker for the Service Location under Normal operating conditions | Normal Operations is the time following Release/Recall during which a System Operator or Service Provider may require a Demand Resource to have returned its Load consumption to normal levels and to be available again for Deployment. | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 45 | **Breaker Status During Event** | Status of the Breaker for the Service Location during an Emergency Event | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 46 | **Wholesale Delivery Point Status** | Flag set if the Service Location is metered at the Wholesale level | - | - | - | Y | - | - | - |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**

For Quadrant:    REQ
Requesters:    Smart Grid Interoperability Panel
Request No.:    2010 REQ Annual Plan Item96
Request Title:    Master Data Requirements List for Business Practice Standards associated with NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale PAP 03 | Wholesale PAP 04 | Wholesale PAP 09 | Retail PAP 03 | Retail PAP 04 | Retail PAP 09 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6-Device and Qualification | 6 | 47 | **Private Use Network** | Flag set if the Resource is an Electric Network connected to the transmission grid | This is used for load that is typically netted with internal generation. | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 51 | **UFR Settings** | Setting of the Under-Frequency Relay | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 52 | **Load Resource Control Device** | Type of Control Device at a Service Location or deployed by a Response Method | - | - | - | Y | - | - | - |
| 6-Device and Qualification | 6 | 70 | **Device Class** | - | Note: From SEP2.0 Enumeration representing the Device Class to apply the current Load Control Event. 0 HVAC compressor or furnace 1 Strip Heaters/Baseboard Heaters 2 Water Heater 3 Pool Pump/Spa/Jacuzzi 4 Smart Appliances 5 Irrigation Pump 6 Managed Commercial & Industrial (C&I) loads 7 Simple misc. (Residential On/Off) loads 8 Exterior Lighting 9 Interior Lighting 10 Electric Vehicle 11 Generation Systems 12 to 15 Reserved | - | - | - | - | - | Y |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 6-Device and Qualification | 6 | 80 | **Asset Manufacturer** | Manufacturer of the Asset | - | - | - | - | - | - | Y |
| 6-Device and Qualification | 6 | 81 | **Asset Model** | Model identifier of the Asset, assigned by the Manufacturer | - | - | - | - | - | - | Y |
| 6-Device and Qualification | 6 | 82 | **Asset Version** | Model version identifier, assigned by the Manufacturer | - | - | - | - | - | - | Y |
| 6-Device and Qualification | 6 | 83 | **Asset Manufacture Date** | Date of Manufacture of the Asset | - | - | - | - | - | - | Y |
| 6-Device and Qualification | 6 | 84 | **Asset Type** | Type of Asset | Examples are: load reduction (curtailable or interruptible load), generation, combination, DG, renewable, storage, etc. | - | - | - | - | - | Y |
| 6-Device and Qualification | 6 | 991 | **Distributed Generator Comments** | Comments associated with the Distributed Generator | - | - | - | Y | - | - | - |
| 7-Market / Program Enrollment | 7 | - | **Market/Program Enrollment** | - | - | - | - | - | - | - | - |
| 7-Market / Program Enrollment | 7 | 10 | **Program ID** | Program Identifier | The identifier of the program | - | - | Y | - | - | Y |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale PAP 03 | Wholesale PAP 04 | Wholesale PAP 09 | Retail PAP 03 | Retail PAP 04 | Retail PAP 09 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7-Market / Program Enrollment | 7 | 11 | **Program Name** | Name of the Program | - | - | - | Y | - | - | Y |
| 7-Market / Program Enrollment | 7 | 12 | **Market** | Type of wholesale market | - | - | - | Y | - | - | - |
| 7-Market / Program Enrollment | 7 | 13 | **Market Product** | Market Product | Product types include the following: energy, capacity, regulation, operating reserves (spinning or non-spin). | - | - | Y | - | - | Y |
| 7-Market / Program Enrollment | 7 | 21 | **Effective Enrollment Date** | Effective Start Date for the Enrollment | Market Enrollment is the collection of enrollment or tariff data for a Demand Resource to provide a specific market product or service. | - | - | Y | - | - | Y |
| 7-Market / Program Enrollment | 7 | 22 | **Enrollment Status** | Status of the Enrollment for the Facility or Resource | Examples: Pending Enrollment, Approved Enrollment, Under Review, Denied, Separated | - | - | Y | - | - | Y |
| 7-Market / Program Enrollment | 7 | 23 | **Resource Type** | Type of Resource | Examples are: load reduction (curtailable or interruptible load), distributed generation, combination, renewable, storage, etc. | - | - | Y | - | - | Y |
| 7-Market / Program Enrollment | 7 | 24 | **Resource Qualification Test Date** | Date the Resource demonstrated its ability to deliver a product or service | - | - | - | Y | - | - | Y |
| 7-Market / Program Enrollment | 7 | 25 | **Enrollment End Date** | Date of Termination of Enrollment | - | - | - | Y | - | - | Y |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 7-Market / Program Enrollment | 7 | 26 | **Requalification Test Date** | Date the Resource will retest its ability to deliver a product or service | - | - | - | Y | - | - | Y |
| 7-Market / Program Enrollment | 7 | 30 | **Lead Time** | Time between the advanced notification and deployment | Notification is the transmittal of a Deployment message. | - | - | Y | - | - | Y |
| 7-Market / Program Enrollment | 7 | 31 | **Day Ahead Flag** | Flag set if the Resource will be participating in the Day-Ahead market | - | - | - | Y | - | - | - |
| 7-Market / Program Enrollment | 7 | 32 | **Real Time Flag** | Flag set if the Resource will be participating in the Real-Time market | - | - | - | Y | - | - | - |
| 7-Market / Program Enrollment | 7 | 33 | **Self-Schedule Flag** | Flag set if the Resource is Self-Deploying | Self-Deployment is the Deployment via established Communication Methods initiated by the Service Provider or the Resource. | - | - | Y | - | - | - |
| 7-Market / Program Enrollment | 7 | 34 | **Response Time** | The amount of time before an asset/resource is capable of meeting its full performance, in response to a request by a Service Provider to shed load. | - | - | - | - | - | - | Y |
| 7-Market / Program Enrollment | 7 | 40 | **Response Method Type** | Type of Response Method | Expressed as a response type code | - | - | Y | - | - | - |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**

For Quadrant: REQ
Requesters: Smart Grid Interoperability Panel
Request No.: 2010 REQ Annual Plan Item96
Request Title: Master Data Requirements List for Business Practice Standards associated with NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale PAP 03 | Wholesale PAP 04 | Wholesale PAP 09 | Retail PAP 03 | Retail PAP 04 | Retail PAP 09 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7-Market / Program Enrollment | 7 | 41 | Response Method ID | Identifier assigned to the Response Method | - | - | - | Y | - | - | - |
| 7-Market / Program Enrollment | 7 | 42 | Response Method Name | Name of the Response Method | - | - | - | Y | - | - | - |
| 7-Market / Program Enrollment | 7 | 43 | Response Method Value | Value of the Response Method | The Demand Response Value is the quantity of modified electrical consumption by a Demand Resource, expressed as MW. | - | - | Y | - | - | - |
| 7-Market / Program Enrollment | 7 | 44 | Verified Capability | Audited Capability | Auditing is the validation of performance, conducted by the System Operator, of certain Response Aggregation Methods AFTER the Enrollment process. | - | - | Y | - | - | - |
| 7-Market / Program Enrollment | 7 | 45 | Verified Capability Factor | Ratio of the Verified Capability to the qualified capability | Qualification is the validation of performance, conducted by the System Operator, of certain Response Aggregation Methods DURING the Enrollment process. | - | - | Y | - | - | - |
| 7-Market / Program Enrollment | 7 | 50 | Performance Evaluation Method Type Code | Code representing the Type of Measurement | - | - | - | Y | - | - | - |
| 7-Market / Program Enrollment | 7 | 51 | Performance Evaluation Method | Method used to Evaluate the Performance of a Resource | Based on NAESB M&V terms. | - | - | Y | - | - | - |

# RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE

For Quadrant: REQ
Requesters: Smart Grid Interoperability Panel
Request No.: 2010 REQ Annual Plan Item96
Request Title: Master Data Requirements List for Business Practice Standards associated with NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 7-Market / Program Enrollment | 7 | 991 | **Market Enrollment Comments** | Comments associated with the Enrollment | - | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | - | **Offer Parameters** | - | - | - | - | - | - | - | - |
| 8-Offer Parameters | 8 | 10 | **Offer Limit Value** | Offer Limit Value | Expressed in MW or hours. Multiple Limit Types are applicable. | - | - | Y | - | - | Y |
| 8-Offer Parameters | 8 | 11 | **Offer Limit Type** | Type of Offer Limit | The limit may be associated with the bidding parameters of a resource. These may include limit types such as seasonal rating, reasonability, economic and ramp limits. | - | - | Y | - | - | Y |
| 8-Offer Parameters | 8 | 12 | **Offer Limit Interval** | Offer Limit Interval | The period over which the offer limit applies, i.e., hour, day, etc. | - | - | Y | - | - | Y |
| 8-Offer Parameters | 8 | 20 | **Physical Min Gen** | Minimum Operating Level of a Resource | - | - | - | Y | - | - | Y |
| 8-Offer Parameters | 8 | 21 | **Min Gen MW** | Minimum MW available for dispatch | When required as part of an enrollment request, this value acts as a default. | - | - | Y | - | - | Y |
| 8-Offer Parameters | 8 | 22 | **MinGenCost** | The cost per hour for each Min Gen MW value. | The cost per hour for each MinGenMW value. | - | - | Y | - | - | Y |
| 8-Offer Parameters | 8 | 23 | **Ramp Rate Type** | Type of Ramp Rate | Examples are: Normal, Emergency, Regulation. | - | - | Y | - | - | Y |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**
For Quadrant:     REQ
Requesters:     Smart Grid Interoperability Panel
Request No.:     2010 REQ Annual Plan Item96
Request Title:     Master Data Requirements List for Business Practice Standards associated with
NIST PAP 03 and PAP 09

| | | | | | | Wholesale | | | Retail | | |
| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 8-Offer Parameters | 8 | 24 | **Ramp Rate Segment** | Energy of Segment of the Ramp Rate | The end value of the Ramp Rate step, monotonically increasing or decreasing (as indicated by the Ramp Rate Direction), expressed in MW  (NOTE: When required as part of an enrollment request, this value becomes the default) | - | - | Y | - | - | Y |
| 8-Offer Parameters | 8 | 25 | **Ramp Rate Direction** | Direction of the selected Ramp Rate Type and Ramp Rate Segment | Valid directions are: Upward, Downward, Both. | - | - | Y | - | - | Y |
| 8-Offer Parameters | 8 | 26 | **Ramp Rate Value** | Ramp Rate associated with the selected Ramp Rate Type for the selected Ramp Rate Segment and Ramp Rate Direction | The NERC definition of Ramp Rate is the rate, expressed in megawatts per minute, by which a generator changes its output. For a Demand Resource, the Ramp Rate is the rate, expressed in megawatts per minute, by which a Demand Resource changes its Load. | - | - | Y | - | - | Y |
| 8-Offer Parameters | 8 | 30 | **Offer Dispatch Type** | Type of Offer | Examples are Flexible (resource follows basepoint signals) or Fixed (resource requests DA commitment and RT schedules of 15 minutes or greater) | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 31 | **Offer Segment MW** | Energy of Segment of the Offer | The end value of the offer step, monotonically increasing, expressed in MW (NOTE: When required as part of an enrollment request, this value becomes the default) | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 32 | **Offer Segment Price** | Price of Segment of the Offer | NOTE: When required as part of an enrollment request, this value becomes the default. | - | - | Y | - | - | - |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**
For Quadrant:      REQ
Requesters:        Smart Grid Interoperability Panel
Request No.:       2010 REQ Annual Plan Item96
Request Title:     Master Data Requirements List for Business Practice Standards associated with
                   NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale PAP 03 | Wholesale PAP 04 | Wholesale PAP 09 | Retail PAP 03 | Retail PAP 04 | Retail PAP 09 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 8-Offer Parameters | 8 | 33 | **Offer Segment Hour** | Hour of Segment of the Offer | NOTE: When required as part of an enrollment request, this value becomes the default. | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 34 | **Startup Cost** | Cost of starting a response activity | NOTE: When required as part of an enrollment request, this value becomes the default. | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 35 | **Strike Price** | Threshold Price | Expressed as a decimal value of price/MW. | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 36 | **Offer Expiration Date** | Date of Expiration of the Offer | This applies to DAM only. | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 37 | **Startup Cost Type** | Type of startup cost | The type of Start Up Cost included in the offer. Options may include: Select cold, intermediate, hot or shutdown. | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 38 | **Offer Commit Status** | Commitment status of offer | Product-specific commitment status types included with offer. Examples include: economic, emergency, must-run, not participating, outage run status, override status, etc. | - | - | Y | - | - | Y |

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Requesters:        Smart Grid Interoperability Panel
Request No.:       2010 REQ Annual Plan Item96
Request Title:     Master Data Requirements List for Business Practice Standards associated with
                   NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 8-Offer Parameters | 8 | 39 | **Offer Dispatch Status** | Dispatch Status of Offer | Product-specific commitment status types included with offer. Examples include: economic, emergency, not participating, not qualified, and self-schedule.<br><br>May also be used to temporarily opt out of DR Events and to override the normal operational constraints. The opt-out can be specified using the following criteria:<br>• All events in a program indefinitely (unspecified time period)<br>• Specific DR Event<br>• All events in a specific time period.<br>• Other triggered programs for which an asset or DR resource is already called upon (reduce double counting of available capacity) | - | - | Y | - | - | Y |
| 8-Offer Parameters | 8 | 331 | **Offer Price Curve Slope** | Flag to smoothe offer segments from step function to slope | - | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 332 | **Strike Price Type** | Type of strike price | Indicates the type of strike price. Options may include: buy or sell. | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 40 | **Market Clearing Day** | Market Clearing Day of the Offer | - | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 41 | **Schedule Name** | Name or tag of the Offer | - | - | - | Y | - | - | - |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 8-Offer Parameters | 8 | 42 | **Schedule Description** | Description of the Offer | - | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 43 | **Schedule Status** | Status of the Offer | - | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 50 | **Portfolio Name** | Name of an aggregation of Resources for market participation | - | - | - | Y | - | - | - |
| 8-Offer Parameters | 8 | 71 | **Constraint Type** | Type of operational, schedule or offer constraint | Types of operational, offer or schedule parameters. Examples include: Select Operational Minimum Runtime, Schedule Minimum Runtime, Operational Maximum Runtime, Schedule Maximum Runtime, Minimum Load, Maximum Load, Minimum Downtime, Minimum Starts, Maximum Energy, Maximum Starts, Time of Day schedule constraints, Black out date, Maximum consecutive days of participation, Maximum calls per day, Minimum Advanced Notification, Minimum duration of participation, etc. | - | - | Y | - | - | Y |
| 8-Offer Parameters | 8 | 72 | **Constraint Interval** | The timeframe over which the constraint type applies. | Typically daily, hourly, weekly, date | - | - | Y | - | - | Y |
| 8-Offer Parameters | 8 | 73 | **Constraint Value** | Value of the Constraint Type and Interval | - | - | - | Y | - | - | Y |
| 9-Energy | 9 | - | **Energy Market** | - | - | - | - | - | - | - | - |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**
For Quadrant:      REQ
Requesters:        Smart Grid Interoperability Panel
Request No.:       2010 REQ Annual Plan Item96
Request Title:     Master Data Requirements List for Business Practice Standards associated with
                   NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| **Market** | | | | | | | | | | | |
| 9-Energy Market | 9 | 0 | **Instruction ID** | - | Unique identifier assigned to each instruction. | - | - | Y | - | - | - |
| 9-Energy Market | 9 | 10 | **Energy Schedule - Start Time** | Start Time of the Energy Schedule | A Schedule is an energy profile for a Resource for a future time period, by scheduling time interval (typically hourly). | - | - | Y | - | - | Y |
| 9-Energy Market | 9 | 11 | **Energy Schedule - End Time** | End Time of the Energy Schedule | A Schedule is an energy profile for a Resource for a future time period, by scheduling time interval (typically hourly). | - | - | Y | - | - | - |
| 9-Energy Market | 9 | 12 | **Energy Schedule - Interval Start Time** | Start Time of the Energy Interval within the Energy Schedule | The start time of a specific energy schedule interval | - | - | Y | - | - | - |
| 9-Energy Market | 9 | 13 | **Energy Schedule - Cleared MW Interval Value** | The Energy Value of cleared MW for the Time Interval within the Energy Schedule | The offered energy MW that have cleared the market. | - | - | Y | - | - | - |
| 9-Energy Market | 9 | 14 | **Energy Schedule - Cleared Price** | Awarded Price | The market clearing price for the cleared energy MW. | - | - | Y | - | - | - |
| 9-Energy Market | 9 | 15 | **Schedule ID** | - | Unique identifier assigned to each schedule. | - | - | Y | - | - | - |

# RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE

**For Quadrant:** REQ
**Requesters:** Smart Grid Interoperability Panel
**Request No.:** 2010 REQ Annual Plan Item96
**Request Title:** Master Data Requirements List for Business Practice Standards associated with NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 9-Energy Market | 9 | 20 | **Base Point** | Per-interval dispatch instruction | A Dispatch is a real-time instruction to a Resource to move to a Base Point at a specific time (Resource-Specific Deployment) or a set of real-time instructions to multiple Resources (Bulk Deployment). A Resoiurce-Specific Deployment is the deployment, via established Communication Methods initiated by the System Operator, of one or more discrete and/or unique Resources designated to provide a selected service. | - | - | Y | - | - | - |
| 9-Energy Market | 9 | 21 | **Breaker Status** | Status of the Breaker for the Resource | - | - | - | Y | - | - | - |
| 9-Energy Market | 9 | 22 | **Output MW** | Real Power Output of the Distributed Generator | Expressed in MW | - | - | Y | - | - | - |
| 9-Energy Market | 9 | 23 | **Output MVAR** | Reactive Power Output of the Distributed Generator | Expressed in Mvar | - | - | Y | - | - | - |
| 9-Energy Market | 9 | 24 | **DR Bus Load MW** | Instantaneous Bus Load of a Demand Resource providing Ancillary Services | Demand is the rate at which electric energy is being used by the customer (NERC Definition). Expressed in MW. This element only applies to DR | - | - | Y | - | - | - |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 9-Energy Market | 9 | 25 | **Set Point** | Final dispatch target level | The real-time desired MW output signal calculated for a specific Resource by the Transmission Provider's control system on a specified periodicity that is equal to the current Energy Dispatch Target plus the Regulating Reserve Deployment instruction (which may be positive or negative) plus an adjustment to the Energy Dispatch Target to account for Contingency Reserve Deployment Instructions.  The Setpoint Instruction represents the desired output level of the Resource. | - | - | Y | - | - | - |
| 10-Ancillary Service Market | 10 | - | **Ancillary Service Market** | - | - | - | - | - | - | - | - |
| 10-Ancillary Service Market | 10 | 0 | **Ancillary Service Instruction ID** | - | Unique identifier assigned to each ancillary service instruction. | - | - | Y | - | - | - |
| 10-Ancillary Service Market | 10 | 10 | **Ancillary Service Product Type** | Type of Ancillary Service product(s) the Resource is enrolling to provide | - | - | - | Y | - | - | Y |
| 10-Ancillary Service Market | 10 | 11 | **Have Engineering Diagram** | Flag set if One-Line Diagrams have been submitted | - | - | - | Y | - | - | - |
| 10-Ancillary Service Market | 10 | 12 | **Ancillary Service Award - Start Time** | Start Time of the ancillary service Award | A Schedule is an ancillary service profile for a Resource for a future time period, by scheduling time interval. | - | - | Y | - | - | - |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 10-Ancillary Service Market | 10 | 13 | Ancillary Service Award - End Time | End Time of the ancillary service Award | A Schedule is an ancillary service profile for a Resource for a future time period, by scheduling time interval. | - | - | Y | - | - | - |
| 10-Ancillary Service Market | 10 | 14 | Ancillary Service Award - Interval Start Time | Start Time of the ancillary service Interval within the ancillary service Award and the ancillary service Value of the Time Interval | The start time of a specific ancillary service schedule interval | - | - | Y | - | - | - |
| 10-Ancillary Service Market | 10 | 15 | Ancillary Service Award - Interval Value | The awarded Value for the Time Interval within the ancillary service Award | The value associated with a specific ancillary service schedule interval | - | - | Y | - | - | - |
| 10-Ancillary Service Market | 10 | 16 | Ancillary Service Award - Cleared Price | Awarded Price | The market clearing price for the cleared ancillary service product MW. | - | - | Y | - | - | - |
| 10-Ancillary Service Market | 10 | 17 | Ancillary Service Schedule ID | - | Unique identifier assigned to each ancillary service schedule. | - | - | Y | - | - | - |
| 10-Ancillary Service Market | 10 | 20 | Ancillary Service Product Qualification Type | Type of Qualification | Examples include initial, requalification, etc. | - | - | Y | - | - | - |
| 10-Ancillary Service Market | 10 | 21 | Synchronization Test Date | Target Date of Test of Synchronization to the grid | - | - | - | Y | - | - | - |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**
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Request No.:    2010 REQ Annual Plan Item96
Request Title:    Master Data Requirements List for Business Practice Standards associated with
NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 10-Ancillary Service Market | 10 | 22 | **Ancillary Service Product Type Qualification Date** | Date of Qualification of the Resource | - | - | - | Y | - | - | - |
| 10-Ancillary Service Market | 10 | 23 | **Ancillary Service Product Type Qualified** | Type of Ancillary Service Product(s) for which the Resource has Qualified | - | - | - | Y | - | - | - |
| 10-Ancillary Service Market | 10 | 24 | **Requalification Requirement** | Flag set if  Requalification is Required | - | - | - | Y | - | - | - |
| 10-Ancillary Service Market | 10 | 31 | **Reserve Pickup Flag** | Flag set if this is a Reserve Pickup schedule | Reserve Service is a type of Demand Response service in which Demand Resources are obligated to be available to provide Demand reduction Energy Service, based on reserve capacity requirements that are established to meet applicable reliability standards. Reserve Services are defined by short-term response rates (Ramp Period) and synchronization with the electricity grid (i.e., spinning and non-spinning reserves). | - | - | Y | - | - | - |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 10-Ancillary Service Market | 10 | 32 | **Regulation Base Point** | Per-interval Regulation dispatch instruction | Regulation Service is a type of Demand Response service in which a Demand Resource corrects for short-term changes in electricity use that might affect the stability of the power system, matching generation and load to maintain a desired frequency. Demand Resources providing Regulation Service are subject to dispatch continuously during a commitment period. Provision of Regulation Service does not correlate to Demand Response deployment terms of the Event timelines, deadlines and durations. | - | - | Y | - | - | - |
| 10-Ancillary Service Market | 10 | 33 | **Base Load MW** | Level of Load at time of dispatch | - | - | - | Y | - | - | - |
| **11-Capacity Market** | **11** | - | **Capacity Market** | - | - | - | - | - | - | - | - |
| 11-Capacity Market | 11 | 10 | **Capacity Type** | Type of Capacity | Capacity Service is a type of Demand Response service in which Demand Resources are obligated over a defined period of time to be available to deliver upon deployment by the System Operator or Service Provider. Examples: Hourly, Monthly, etc. | - | - | Y | - | - | Y |
| 11-Capacity Market | 11 | 11 | **Capacity Type description** | Description of the Type of Capacity | - | - | - | Y | - | - | Y |
| 11-Capacity Market | 11 | 20 | **Peak Value** | Measurement of Peak | - | - | - | Y | - | - | - |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**
For Quadrant:    REQ
Requesters:    Smart Grid Interoperability Panel
Request No.:    2010 REQ Annual Plan Item96
Request Title:    Master Data Requirements List for Business Practice Standards associated with NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale PAP 03 | Wholesale PAP 04 | Wholesale PAP 09 | Retail PAP 03 | Retail PAP 04 | Retail PAP 09 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 11-Capacity Market | 11 | 21 | **Peak Type** | Type of measurement of Peak | Examples are: Annual, Monthly, Weekly, and Seasonal. | - | - | Y | - | - | - |
| 11-Capacity Market | 11 | 22 | **Peak Date/Time** | Date and Time of measurement of Peak | - | - | - | Y | - | - | - |
| 11-Capacity Market | 11 | 23 | **Nominal Capacity** | Nominated load | Expressed as a decimal value. | - | - | Y | - | - | Y |
| 11-Capacity Market | 11 | 24 | **Qualified Capacity** | Nominal ICAP derated for performance | Derated based on past performance. | - | - | Y | - | - | Y |
| 11-Capacity Market | 11 | 30 | **Capacity Obligation Period Type** | Type of Capacity Obligation Time Period within which the Resource is obligated | Examples are: All hours, Business hours 1, Business hours 2, Business Hours 3, Non-Business hours. | - | - | Y | - | - | - |
| 11-Capacity Market | 11 | 31 | **Capacity Obligation Period** | Period of time for which the Capacity Resource is Obligated | Examples include: month, season, year, etc. | - | - | Y | - | - | - |
| 11-Capacity Market | 11 | 40 | **Minimum Payment Nomination** | Strike price for the economic dispatch of the energy component of the capacity program | Expressed in Price/MW. | - | - | Y | - | - | - |
| 11-Capacity Market | 11 | 41 | **Capacity Supply Obligation** | Capacity Obligation | This may result from an auction or other clearing mechanism. | - | - | Y | - | - | - |
| 11-Capacity Market | 11 | 50 | **Capacity Reference ID** | Identifier assigned to the External System award | An Award is the selection of a Resource to provide energy, ancillary services, or capacity for a future time period. Expressed as a string. | - | - | Y | - | - | - |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 11-Capacity Market | 11 | 991 | **Capacity Comments** | Comments associated with the Capacity market | - | - | - | Y | - | - | - |
| 12-Event and Performance | 12 | - | Event and Performance | - | - | - | - | - | - | - | - |
| 12-Event and Performance | 12 | 10 | **Event ID** | Identifier assigned to the Event | An Event consists of the time periods, deadlines, and transitions during which Demand Resources perform. The System Operator shall specify the duration and applicability of a Demand Response Event. Some deadlines, time periods, and transitions may not be not applicable to all products or services. | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 11 | **Deployment Type** | Type of Deployment | Examples are: Advanced (Normal), Immediate, Audit/Test | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 12 | **Event Day** | Operating Date of Start of Event | - | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 13 | **Event Description** | Description of the Event | - | - | - | Y | - | - | - |
| 12-Event and Performance | 12 | 14 | **Event Start Time** | Time of Start of deployment period for Event | The Deployment Period is the period of time from the Deployment to Release/Recall. | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 15 | **Operator Comment** | Additional Event information provided by the Operator | - | - | - | Y | - | - | - |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 12-Event and Performance | 12 | 16 | **Deployment MW** | Absolute or relative Deployment quantity | Expressed as an absolute or relative (%) MW value. | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 17 | **Event Status** | Status of the Event | Examples include: inititiated, completed, etc. | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 18 | **Event End Time** | Time of End of deployment period | Release/Recall is the notification, sent from the System Operator or Service Demand Response Provider to the Demand Resource, that the Deployment Period has ended or announcing the time that it will end. | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 19 | **Event Modification Number** | A modification number for the DR event. This is used to indicate if the DR Event has been modified by the Utility. Each time it is modified, this number is incremented. | - | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 111 | **Notification Acknowledgement** | This is an acknowledgement of the receipt of a DR notification or dispatch. It should include any necessary provisions for non-repudiation. | - | - | - | Y | - | - | Y |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**

For Quadrant:    REQ
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| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 12-Event and Performance | 12 | 112 | **Event Modification Reason Code** | The reason the event is being cancelled or modified. | - | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 113 | **Load Level Value** | Value of the load level to be achieved based on a set of enumerated values (e.g., moderate, high, etc.). | - | - | - | - | - | - | Y |
| 12-Event and Performance | 12 | 21 | **Baseline Dates** | Dates of days used to calculate the Energy Baseline | The Baseline Window is the window of time preceding, and optionally following, a Demand Response Event, over which electricity consumption data is collected for the purpose of establishing a Baseline. The applicability of this term is limited to Meter Before/Meter After, and Baseline Type-I and Type-II. | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 22 | **Baseline Exclusion Dates** | Dates of days Excluded from the calculation of the Energy Baseline | - | - | - | Y | - | - | Y |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 12-Event and Performance | 12 | 23 | Energy Baseline Value | Calculated Energy Baseline | A Baseline is an estimate of the electricity that would have been consumed by a Demand Resource in the absence of a Demand Response Event. The Baseline is compared to the actual metered electricity consumption during the Demand Response Event to determine the Demand Modification Value. Depending on the type of Demand Response product or service, Baseline calculations may be performed in real time or after the fact. | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 24 | Energy Baseline Timestamp | Timestamp of Energy Baseline | - | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 30 | Reporting Interval | Interval size required for Reporting | - | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 31 | Measurement Value Timestamp (CIM) | The time when the value was last updated | - | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 32 | Measurement Value (CIM) | Value of the interval reading | - | - | - | Y | - | - | Y |
| 12-Event and Performance | 12 | 33 | Response Value | Response | - | - | - | Y | - | - | Y |

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**

For Quadrant: REQ
Requesters: Smart Grid Interoperability Panel
Request No.: 2010 REQ Annual Plan Item96
Request Title: Master Data Requirements List for Business Practice Standards associated with NIST PAP 03 and PAP 09

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 12-Event and Performance | 12 | 34 | **Measurement Value Type** | The type of measurement value. | The Measurement Value Type identifies the type of information provided in the Measurement Value. For example, the Measurement Value type could be energy (kWh/MWh) or demand (KW or MW). | - | - | Y | - | - | - |
| 12-Event and Performance | 12 | 50 | **Simple Signal Levels** | Used as an alternate and simplified representation of the DR signal, whether it be price based or a dispatch.  Takes on a small number of finite levels such as NORMAL, MODERATE, and HIGH, SPECIAL | - | - | - | - | - | - | Y |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 12-Event and Performance | 12 | 51 | Criticality Level | This field defines the level of criticality of this event. The action taken by load control devices for an event can be solely based on this value, or combination with other Load Control Event fields supported by this device. | For example, additional fields such as Average Load Adjustment Percentage, Duty Cycle, Cooling Temperature Offset, Heating Temperature Offset, Cooling Temperature Set Point or Heating Temperature Set Point can be used in combination with the Criticality level. Criticality Level Level Description Participation 0  Reserved 1  Green  Voluntary 2  1  Voluntary 3  2  Voluntary 4  3  Voluntary 5  4  Voluntary 6  5  Voluntary 7  Emergency  Mandatory 8  Planned Outage  Mandatory 9  Service Disconnect  Mandatory 0x0A to 0x0F  Utility Defined  Utility Defined | - | - | - | - | - | Y |
| 12-Event and Performance | 12 | 52 | Usage Information | Information about the near real time electricity usage of the DR Resource. | - | - | - | - | - | - | Y |
| 12-Event and Performance | 12 | 991 | Event & Performance comments | Comments associated with Event and Performance data | - | - | - | Y | - | - | - |
| 13-Direct Load Control | 13 | - | Direct Load Control | - | - | - | - | - | - | - | - |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale PAP 03 | Wholesale PAP 04 | Wholesale PAP 09 | Retail PAP 03 | Retail PAP 04 | Retail PAP 09 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 13-Direct Load Control | 13 | 10 | **Status Check** | A signal to require the DR resource status to be sent back. (Only applicable to Direct Load Control) | - | - | - | - | - | - | Y |
| 13-Direct Load Control | 13 | 11 | **DR Control Command: Direct Load Control Type** | The type of DR Direct Load Control Command: e.g. Set Point, Open/Close, Heating Temperature - offset/setpoint, Cooling Temperature - offset/setpoint, Load adjustment offset | - | - | - | - | - | - | Y |
| 13-Direct Load Control | 13 | 12 | **DR Control Command: Direct Load Control Value** | Value associated with the Direct Load Control Type. | - | - | - | - | - | - | Y |
| 13-Direct Load Control | 13 | 13 | **Duty Cycle** | "Duty Cycle : Defines the maximum On state duty cycle as a percentage of time. Example, if the value is 80, the device would be in an "on state" for 80% of the time for the duration of the event. Range of the value is 0 to 100. A value | - | - | - | - | - | - | Y |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| | | | | of 0xFF indicates the field is not used." (from SEP2.0) | | | | | | | |
| 13-Direct Load Control | 13 | 14 | **Event Control** | Event Control options for randomized start or end times: 1= Randomize Start time, 0=Randomized Start not Applied 1= Randomize End time, 0=Randomized End not Applied. (from SEP2.0) | - | - | - | - | - | - | Y |
| 13-Direct Load Control | 13 | 15 | **Exception Conditions** | This is used to report that the load controller may not behave as commanded because of a variety of conditions including: • Faults in device • Customer override. | - | - | - | - | - | - | Y |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 13-Direct Load Control | 13 | 16 | **Load Control State** | The state of the load, which includes both commanded states and user settings.  This may include a schedule of future states if a particular control algorithm for the load controller is being executed. | - | - | - | - | - | - | Y |
| 14-Price and Product | 14 | - | Price and Product | - | - | - | - | - | - | - | - |
| 14-Price and Product | 14 | 10 | **Product Name** | Same as 7.13 Market Product | An identifier for a particular electricity product offering: energy, capacity, ancillary services, etc. | Y | - | - | - | - | - |
| 14-Price and Product | 14 | 11 | **Product Type** | Defines the source and product | Classifications used within industry for trading energy. Examples: PJM Energy, NYISO 10-min Spin, etc. | Y | - | - | - | - | Y |
| 14-Price and Product | 14 | 12 | **Product Sub-type** | Used to further define product types | - | Y | - | - | Y | - | - |
| 14-Price and Product | 14 | 13 | **Identifier Source (product)** | The Identifier Source references the product identification scheme for the Product Identifier. | - | Y | - | - | - | - | - |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale PAP 03 | Wholesale PAP 04 | Wholesale PAP 09 | Retail PAP 03 | Retail PAP 04 | Retail PAP 09 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14-Price and Product | 14 | 14 | **Unit of Measure** | Attribute of Product Identifier | - | Y | - | - | - | - | Y |
| 14-Price and Product | 14 | 15 | **Currency** | Economic unit of exchange in which the total price and price components are stated (e.g. dollars, euros) | - | Y | - | - | Y | - | Y |
| 14-Price and Product | 14 | 20 | **Product Identifier** | Identifies specific product associated with the price | - | Y | - | - | Y | - | - |
| 14-Price and Product | 14 | 30 | **Override Unit of Measure** | Optional Attribute of Price object. If this is used, then Unit of Measure is not applicable | - | Y | - | - | - | - | - |
| 14-Price and Product | 14 | 31 | **Product Price** | The sum of all Price Component Values for a given product (Total Price). | - | Y | - | - | - | - | Y |
| 14-Price and Product | 14 | 32 | **Product Price Factor** | Terms of use attribute of Product Price | Examples: Price_absolute, Price_relative, Price_multiplier | Y | - | - | Y | - | - |
| 14-Price and Product | 14 | 33 | **Price Component Type** | The portion of the price to which the corresponding value applies. | Examples: Energy, congestion, losses | Y | - | - | - | - | - |
| 14-Price and Product | 14 | 34 | **Price Component Value** | The value of the price component. | - | Y | - | - | - | - | - |

| Category | Category ID | Category Element ID | Data Element | Short Description | Long Description | Wholesale | | | Retail | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PAP 03 | PAP 04 | PAP 09 | PAP 03 | PAP 04 | PAP 09 |
| 14-Price and Product | 14 | 35 | **Price Location** | The location at which the price is applicable. | - | Y | - | - | - | - | - |
| 14-Price and Product | 14 | 36 | **Price Type** | Time characteristic of the price | The type of price (day-ahead, real-time, etc.). | Y | - | | - | - | - |
| 14-Price and Product | 14 | 37 | **Delivery Time** | Time at which the product is available for physical consumption | - | Y | - | - | Y | - | Y |
| 14-Price and Product | 14 | 38 | **Delivery Interval** | The duration over which the product is available for physical consumption | - | Y | - | - | Y | - | Y |
| 14-Price and Product | 14 | 40 | **Source Location Identifier** | The identifier of the source location of the product for which the price applies | - | Y | - | - | Y | - | - |
| 14-Price and Product | 14 | 41 | **Source Location Identifier Type** | The type of source location of the product for which the price applies | - | Y | - | - | - | - | - |

| | RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE |
|---|---|
| | **For Quadrant:** REQ |
| | **Requesters:** Smart Grid Interoperability Panel |
| | **Request No.:** 2010 Retail Annual Plan Item |
| | **Request Title:** **Master Data Requirements List for Business Practice Standards associated with NIST PAP 03, PAP 04 and PAP 09** |

## 4. Supporting Documentation

### a. Description of Request:

2010 REQ Annual Plan Item 9 and 2010 WEQ Annual Plan Item 6 – "Develop Smart Grid Wholesale and Retail Electric Standards"

### b. Description of Recommendation:

This recommendation provides the data requirements related to the use cases developed for Priority Action Plan 03 and 09 as part of the phase one effort

### c. Business Purpose:

This recommendation has been developed in response to a request from NIST to provide use cases and requirements germane to the development of standard DR and DER signals.

### d. Commentary/Rationale of Subcommittee(s)/Task Force(s):

NAESB Smart Grid Standards Subcommittee Meeting Notes/Documents:

- March 11, 2010 Meeting Notes – To be posted
- March 18, 2010 Meeting Notes – To be posted
- March 25, 2010 Meeting Notes – To be posted
- April 1, 2010 Meeting Notes – To be posted
- April 8, 2010 Meeting Notes – To be posted
- April 29, 2010 Meeting Notes – To be posted
- May 13, 2010 Meeting Notes – To be posted
- May 20, 2010 Meeting Notes – To be posted
- June 10, 2010 Meeting Notes – To be posted
- June 17, 2010 Meeting Notes – http://www.naesb.org/pdf4/smart_grid_ssd061710notes.doc
- July 1, 2010 Meeting Notes – To be posted
- July 13-14, 2010 Meeting Notes – To be posted
- July 22, 2010 Meeting Notes – To be posted
- August 5, 2010 Meeting Notes – http://www.naesb.org/pdf4/smart_grid_ssd080510notes.doc
- August 12, 2010 Meeting Notes – http://www.naesb.org/pdf4/smart_grid_ssd081210notes.doc

**RECOMMENDATION TO NAESB EXECUTIVE COMMITTEE**
**For Quadrant:** REQ
**Requesters:** Smart Grid Interoperability Panel
**Request No.:** 2010 Retail Annual Plan Item
**Request Title:** Master Data Requirements List for Business
Practice Standards associated with NIST PAP 03,
PAP 04 and PAP 09

- August 26, 2010 Meeting Notes –
  http://www.naesb.org/pdf4/smart_grid_ssd082610notes.doc

- September 9, 2010 Meeting Notes –
  http://www.naesb.org/pdf4/smart_grid_ssd090910notes.doc

- September 16, 2010 Meeting Notes –
  http://www.naesb.org/pdf4/smart_grid_ssd091610notes.doc

- September 23, 2010 Meeting Notes – To be posted